

# APPENDIX

TO THE

## Appropriation Accounts

of the

## Central Government (Civil)

For the year 1930-31

CONTAINING

## Accounts and Reviews of Government Commercial Concerns

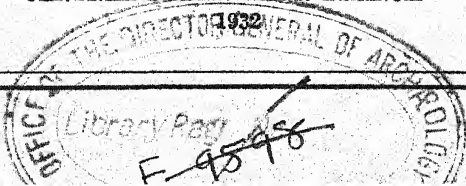
COMPILED BY

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*Director of Commercial Audit.*



19  
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# TABLE OF CONTENTS.

		Grant No.	Paras.
Chapter I .	Introductory . . . . .	..	(i) to (xviii).
Chapter II .	Government of India, Finance Department concerns—		
	1. Security Printing, India, including Central Stamp Store, Nasik Road.	20—Stamps and 87—C a p i t a l outlay, S. P. I.	1 to 19.
	2. General remarks introductory to the reviews of the accounts of the Mints.	..	20 to 27.
	3. His Majesty's Mint, Calcutta.	71—Mint . . .	28 to 42.
	4. His Majesty's Mint, Bombay.	Do. . . .	43 to 79.
	5. Currency Note Press, Nasik Road.	70—Currency . .	80 to 104.
Chapter III .	Government of India, Finance Department, Central Board of Revenue concerns—		
	1. Northern India Salt Revenue Department (Manufacturing Department).	18—Salt . . .	105 to 127.
	2. Opium Factory, Ghazipur (Cost Accounts).	19—Opium . .	128 to 149.
Chapter IV .	Government of India, Education, Health and Lands Department concerns—		
	1. Mathematical Instrument Office, Calcutta.	48—Survey of India.	150 to 164.
	2. Map Record and Issue office.	Do. . . .	} 165 to 166.
	3. Photo Litho office . . .	Do. . . .	
	4. General remarks introductory to the reviews of the accounts of the Farms and Creamery.	..	167 to 171.
	5. Imperial Institute of Animal Husbandry and Dairying, Wellington.	59—Agriculture .	172 to 182.

		Grant No.	Paras.
Chapter IV— <i>contd.</i>	6. Imperial Institute of Animal Husbandry and Dairying, Bangalore.	59—Agriculture .	183 to 198.
	7. Imperial Cattle Breeding Farm, Karnal.	Do. .	199 to 222.
	8. Government Research Creamery, Anand.	Do. .	223 to 240.
	9. Agricultural Research Institute, Pusa.	Do. .	241 to 262.
	10. Sugarcane Expert's Office, Coimbatore.	Do. .	263 to 264.
	11. Imperial Institute of Veterinary Research and Dairy, Muktesar, also Imperial Veterinary Serum Institute, Izatnagar.	60—Civil Veterinary Services.	265 to 282.
	12. Forest Department, Andamans.	81—Andamans and Nicobar Islands.	283 to 301.
Chapter V	Government of India, Commerce Department concerns—		
	1. Bengal Pilot Service .	46—Port and Pilotages.	302 to 332.
	2. Indian Lighthouse Department.	47—Light houses and Lightships and 94—Capital outlay on Light-houses and Lightships.	333 to 341.
Chapter VI	Government of India, Home Department concerns—		
	1. Shipping Office, Andamans.	81—Andamans and Nicobar Islands.	342 to 354.
	2. Marine Department, Andamans.	Do. .	355 to 366.
	3. Executive Commissariat Department, Andamans (Bakery, Dairy Farm, Ice Factory and Butchery).	Do. .	367 to 379.
Chapter VII	Government of India, Industries and Labour Department concerns—		
	1. Indian State Air Service	62—Aviation .	380 to 390.
	2. Indian State Broadcasting Service.	68—Miscellaneous Departments.	391 to 434.

4.<sup>v</sup>  
**First list of corrections to the Appropriation Accounts of the Central Government (Civil) and the Report of the Accountant General, Central Revenues, thereon for the year 1930-31.**

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**No. 1.**

*Page iii, paragraph 1—*

*Read "correctness" for "corrections" in line 18.*

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**No. 2.**

*Page 3, paragraph 8—*

*Read "all-India Services" for "India Services" in line 9.*

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**No. 3.**

*Page 7, item (4)-64-Census—*

*Read " , " for the existing entry in column 2 and " 3,15,000 " for " 3,000 " in column 3.*

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**No. 4.**

*Page 36, sub-head A. 8—*

*Insert a minus sign before " 45,157 " in the last column.*

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**No. 5.**

*Page 38, sub-head F.-2-Non-voted—*

*Read " 1,782 " for " 782 " in column 3.*

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**No. 6.**

*Page 54, explanation under sub-head A.-4—*

*Read "framed" for "amed" in line 3.*

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**No. 7.**

*Page 69, Totals-Non-voted—*

*Read " 6,176 " for " 6,716 " in column 4.*

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**No. 8.**

*Page 89, sub-head C.-3 (5)-Non-voted.—*

*Insert " 1,650 " after the minus sign in column 4.*

---

**No. 9.**

*Page 93, sub-head E. 5 (1)—*

*Read " -64 " for " -6 " in column 6.*

**No. 10.**

*Page 129, sub-head A.-2-Voted—*

*Read “—1,538” for “—1,53” in column 6.*

**No. 11.**

*Page 142, sub-head C.-2—*

*Read “—20,000” for “—20,0000” in column 5.*

**No. 12.**

*Page 177, sub-head I.-2 (4)—Voted—*

*Read “States” for “Store” in the explanation.*

**N . 13.**

*Page 192—*

(i) Serial No. 12. *Insert “18,992” in the column for excess.*

(ii) Serial No. 13. *Insert “172” in the column for excess.*

**No. 14.**

*Page 207, sub-head X-1 (2)—*

*Read “—390” for “—39” in column 6.*

**No. 15.**

*Page 231, sub-head E.-2-Non-voted—*

*Read “(Rs. 2,874)” for “(Rs. 2,” at the end of the explanation.*

**No. 16.**

*Page 233, Notes—*

*Read “provision of Rs. 5 lakhs” for “provisio of” in line 2 of Note 1.*

**No. 17.**

*Page 239, sub-head H. 21-Non-voted.—*

*Read “—8,869” for “—8,896” in column 6.*

**No. 18.**

*Page 243, Account I.-Totals-Non-voted—*

*Read “—318” for “—18” in column 6.*

**No. 19.**

*Page 249, Account VII, sub-head A.-6—*

*Read “+1,706” for “+1,70” in column 5, and insert “—969” in column 6.*

**No. 20.**

*Page 271, Account VIII, sub-head A.-1(1)—*

*Put a minus sign before the figure in column 6.*

**No. 21.**

*Page 276, Account XII, sub-head A.-4—*

*Delete “of” between “passage” and “contribution” in the explanation.*

**No. 2.**

*Page 295, Account II, sub-head B.-1-Voted—*  
*Read “ +1,492 ” for “ +1,49 ” in column 4.*

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**No. 23.**

*Page 303, Account I, sub-head D.-4 (1)—*  
*Read “ 1,44,641 ” for “ 1,4,641 ” in column 3.*

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**No. 24.**

*Page 358, sub-head C.-Non-voted—*  
*Read “ —1,448 ” for “ —1,44 ” in column 6.*

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**No. 25.**

*Page 369, sub-head N.—*  
*Read “ 16,339 ” for “ 16,33 ” in column 3.*

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**No. 26.**

*Page 8, paragraph 17, item 6, Grant No. 98—Loans and Advances bearing interest.—*  
*Read “ 11,79,23,871 ” and “ 2,30,88,871 ” for the existing figures appearing in columns for “ Actual expenditure ” and “ Excess ” respectively.*

---

**No. 27.**

*Page 12, paragraph 22-Voted—*  
*Read “ 2,30,88,871 ” for “ 2,30,88,881 ” against 1930-31 under group “ Disbursements of loans and advances ”.*

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**No. 28.**

*Page 14, paragraph 26—*  
*Read “ 2,30,88,871 ” and “ 2,33,38,871 ” for the existing figures against Grant No. “ 98—Loans and Advances bearing interest ” in columns 2 and 4, respectively.*

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**No. 29.**

*Page 16, paragraph 32—*  
*Read “ 64-Census ” for “ 64-Customs ” in column 1.*

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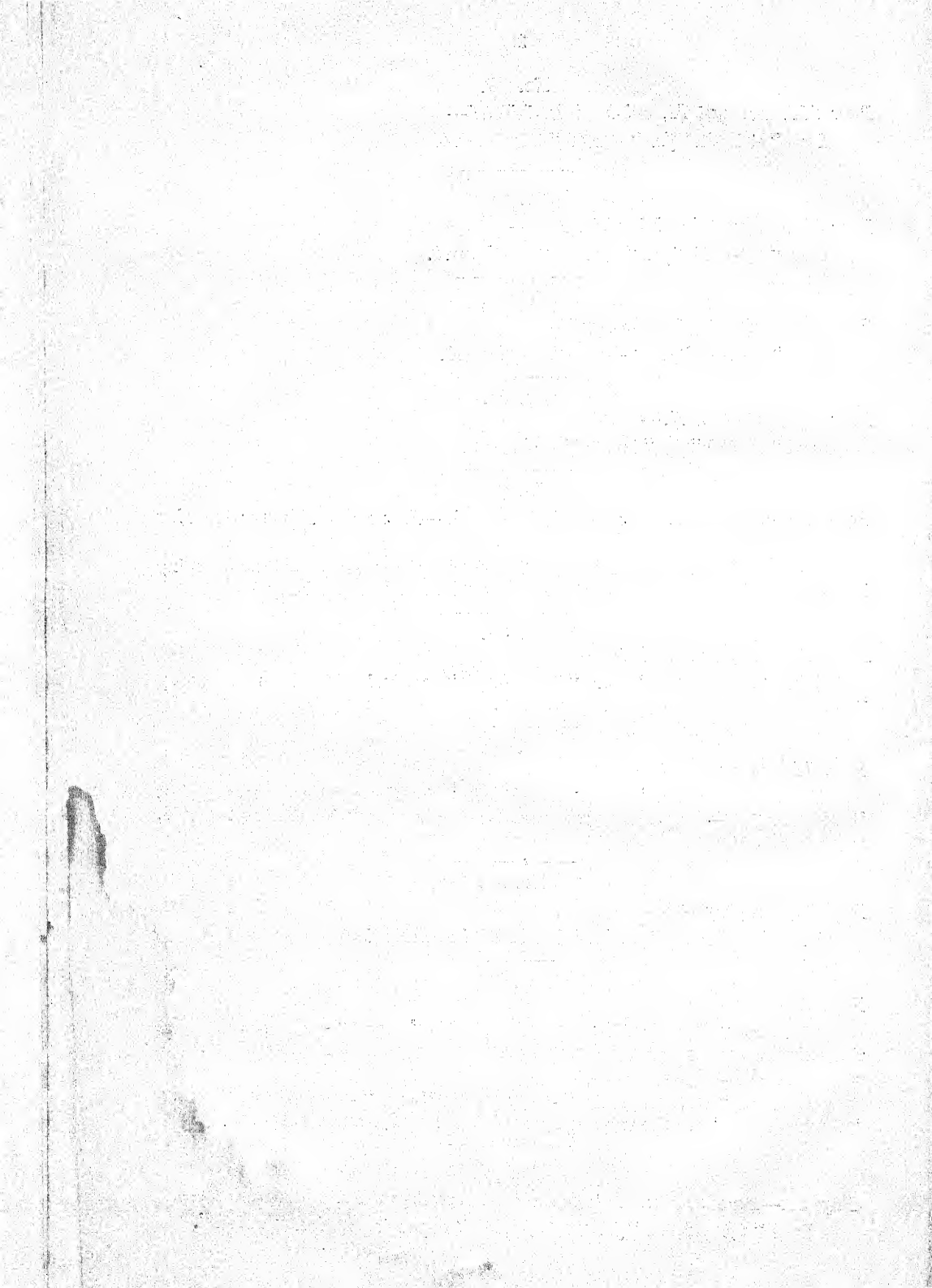
**No. 30.**

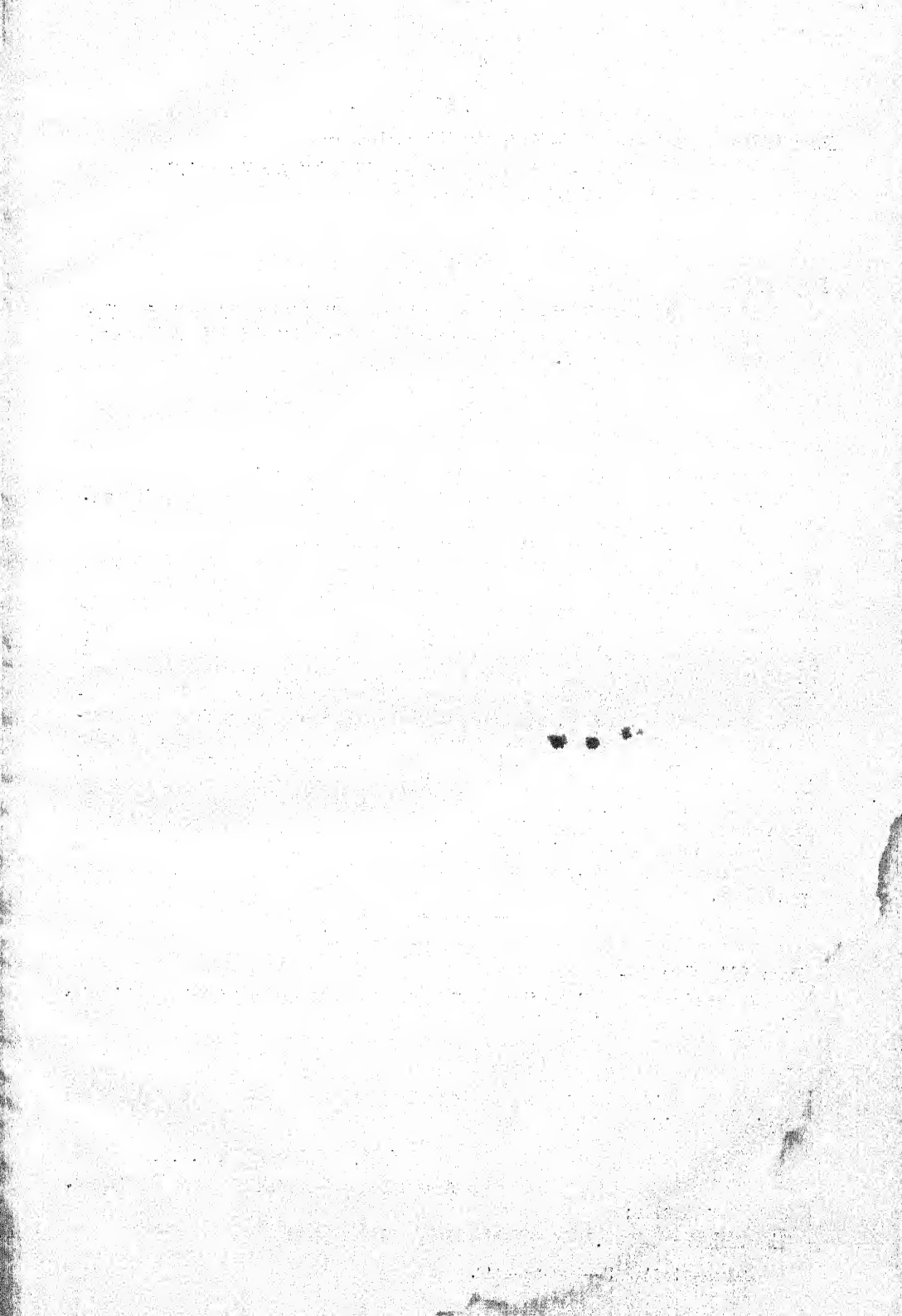
*Page 26—*  
*(i) Read “ 11,79,23,871 ”, “ +2,30,88,871 ” and “ +2,33,38,871 ” for the existing figures against Grant No. “ 98—Loans and Advances, etc.”, in columns 3, 4 and 6, respectively.*  
*(ii) Read “ 33,98,40,795 ”, “ +1,49,32,996 ” and “ +2,07,79,944 ” against “ Totals-Voted ” for the existing figures in columns 3, 4 and 6, respectively.*

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**No. 31.**

*Page 26.—Amount of excess to be covered by excess grants or appropriations—*  
*Read “ 2,53,12,903 ” for “ 2,53,12,913 ” appearing against “ Voted ”.*







## No. 32.

*Page 376, sub-head A.-4 (1)—House building advances—*

*Read "19,17,849", "—3,66,151" and "—3,96,151" for the existing figures in columns 3, 4 and 6, respectively.*

## No. 33.

*Page 376—*

*Read "11,79,23,871", "+2,30,88,871" and "+2,33,38,871" for the existing figures in columns 3, 4 and 6, respectively against "Total" at the end of the appropriation account.*

## No. 34.

*Page 377, paragraph 1—*

*Insert the following as an addition to sub-paragraph 4 :—*

In orders dated the 4th December 1931 the Finance Department in consultation with the Auditor General have decided that Audit Officers should report diversion of funds from productive purposes specified in the orders sanctioning advances from the Provincial Loans Fund, to other purposes. The Government of India will decide whether any particular diversion should be regarded as of a sufficiently permanent character to necessitate regularisation by the Local Government on the next occasion on which it borrows from the Provincial Loans Fund by requiring it to apply for additional loans equal in amount to the excess of the actual outlay on the unproductive works over the advances originally taken for the purpose. This treatment will not, however, be necessary if the running account of the advances shows that the diversions have in the meantime been made good by internal arrangement. In the case of temporary diversion occasioned by the inherent difficulty of estimating in advance the actual productive and other expenditure of a given year, no specific action will be necessary. The change in procedure was to be introduced from the accounts of 1931-32, it not being the intention that old transactions should be re-examined. If, however, there have been any cases of diversions actually outstanding they should be dealt with in accordance with the above procedure.

## No. 35.

*Page 183, Note 4—*

(i) *Read "1,33,77" for "51,75" under 1930-31 against "Works" in the third sub-paragraph of the Note.*

(ii) *Delete sub-paragraph 5 (beginning "The total .....") of the Note and substitute the following for sub-paragraph 4 :*

*The establishment charges for 1930-31 include 37 on account of the Road Engineer and his establishment.*

J. F. MITCHELL, I.C.S.,  
Accountant General, Central Revenues.

NEW DELHI ;  
The 29th April 1932.



# APPENDIX

TO THE

## Appropriation Accounts of the Central Government (Civil) for the year 1930-31 containing Accounts and Reviews of Government Commercial Concerns.

### CHAPTER I.

#### SECTION 1.

(i) Section 1 of this opening chapter deals with some general comments relating to the accounts of Government commercial concerns. Section 2 deals with general questions relating to the audit of the accounts of these concerns for the year 1930-31. Chapters II to VII deal with the working results of Government concerns grouped according to the department of the Government of India which controls the concerns. In every case information is given in the following order:—

- (a) A review of the working of the concern for the year 1930-31 prepared by the Officer in charge of the concern.
- (b) Remarks of the Director of Commercial Audit on the audit of the accounts of the concern for the year.
- (c) Manufacturing and/or Trading and Profit and Loss Accounts and Store Accounts for the year and Balance Sheet at the end of the year.

This appendix contains reviews only of those Central concerns with the audit of the accounts of which the Commercial Audit Branch is concerned.

(ii) It is a recognised fact that the Indian Government system of accounts is unsuitable for recording and controlling the transactions, and presenting at any time the true state of affairs, of the Government commercial undertakings. Government accounts differ from accounts in commercial form in several important aspects. The most important differences are that Government accounts record only Receipts and Payments. They make no attempt to distinguish between actual Income and Expenditure applicable to a period and they do not, in many cases, incorporate the results of the Government inter-departmental transactions.

(iii) At Government commercial concerns commercial books to record cash, stores and costing transactions are maintained in addition to the ordinary Government accounts to facilitate the preparation of Manufacturing, Trading and Profit and Loss Accounts and Balance Sheets. With the exception of two concerns which work under the rules in Chapter 2 of the Account Code they prepare and present bills on the treasury for their expenditure like any Government office and they pay their receipts into the treasury. In the commercial accounts of the concern, "Withdrawals from the treasury" and "Remittances into the treasury" are accounted for, and at the close of the year these accounts are closed by credit and debit to "Government Capital Accounts"; for whatever Government pays to a concern increases the capital invested by Government in it and whatever money is returned by the concern decreases the capital invested by Government in the concern. Such concerns cannot

be considered to have any specific working capital. When at the end of a year, the Profit and Loss Account is drawn up, the net profit is added to the Government Capital Account and so also are any liabilities of the concern to Government for leave, pension and passage contributions on account of permanent employees, bonus for provident funds, audit fees, interest and depreciation charges.

(iv) The following is a list of commercial concerns controlled by the Government of India :—

- (1) His Majesty's Mints, Bombay and Calcutta.
- (2) Imperial Institute of Animal Husbandry and Dairying, Bangalore.
- (3) Imperial Institute of Animal Husbandry and Dairying, Wellington.
- (4) Imperial Cattle Breeding Farm, Karnal.
- (5) Agricultural Research Institute, Pusa.
- (6) { Imperial Institute of Veterinary Research, Muktesar.  
Imperial Veterinary Serum Institute, Izatnagar.
- (7) Government Reserach Creamery, Anand.
- (8) Opium Factory (Cost accounts), Ghazipur.
- (9) Northern India Salt Revenue Department (Manufacturing Department), Delhi.
- (10) Indian Lighthouse Administration (Headquarters and Lighthouse Districts).
- (11) Bengal Pilot Service, Calcutta.
- (12) Mathematical Instrument Office, Calcutta.
- (13) Photo Litho Office, Calcutta.
- (14) Map Record and Issue Office, Calcutta.
- (15) Forest Department, Andamans.
- (16) Commissariat Department, Andamans (Butchery, Bakery, Dairy, Ice Factory, etc.).
- (17) Marine Department, Andamans.
- (18) Shipping Office, Andamans.
- (19) The Security Printing, India, including the Central Stamp Store, Nasik Road.
- (20) The Currency Note Press, Nasik Road.
- (21) The Sugar Cane Expert's Office, Coimbatore.
- (22) Indian State Air Service.
- (23) Indian State Broadcasting Service.

(v) The Manufacturing and/or Trading and Profit and Loss Accounts and Balance Sheets given in this volume have been prepared on the principles that are adopted in ordinary commercial accounting practice and it is not necessary to explain to the members of the Public Accounts Committee in detail the nature of all the items to be found in them. It is always borne in mind that if such accounts are to be really intelligible each item, however small, should be self explanatory or accompanied by an explanation. It might, however, be useful to offer a few remarks on the more important points to be considered when examining these accounts. It will be seen that in certain respects the accounts differ in form of presentation. It is not possible to prepare forms which would be suitable for the many types of Government commercial concerns. The majority of these concerns are manufacturing concerns. They purchase raw material for conversion, after perhaps going

through many processes, into finished articles for issue to other Government Departments or for sale to the public. The raw materials differ so much in nature that no standard form can be laid down as being applicable to all cases.

(vi) The Manufacturing and Trading and Profit and Loss Accounts are the statements which demand the most careful attention. They present the result of the actual working of a concern for a period as opposed to its financial position at any given date. When examining such accounts the main point is to ascertain if a concern is making all the profit it should after taking into consideration educational and research activities, if any. Where the concerns have an educational and research side, as for example in the Farms, efforts have been made to show as far as possible the financial results of these activities separately from the commercial activities. The indirect charges include interest, leave and pension contributions and provident fund bonuses, audit fees, supervision and direction charges. In special cases and under orders of Government these charges have not been shown in the body of the accounts but in foot-notes. Interest is charged at 3·3252 per cent. on all Capital expenditure up to the end of 1916-17 and for subsequent capital expenditure at the average rate at which Government has borrowed money up to the year of account. The supervision and direction charges are calculated on the average estimated time spent on the concern by the supervising officers. For the purposes of calculating leave and pension contributions, the concern is treated as if it were foreign service. Miscellaneous receipts and extraordinary receipts and charges not relating to the period of working are also shown separately in the accounts so that the net result of the year's working may better be exhibited. The costs of production are wherever possible extracted and commented upon. Before, however, a conclusion can be reached as to the efficiency with which a Government concern is working, the results shown have to be considered with reference to the policy of Government in the case of that particular concern.

(vii) A Manufacturing Account is an account drawn up to ascertain the cost of manufacture and deals with (1) Cost of raw materials, (2) Cost of bringing these materials to the factory, (3) Cost of labour employed in converting these materials into finished goods, (4) Expenses such as rent, rates and upkeep of factory, (5) Repairs to, upkeep of, and depreciation on Buildings, Plant and Machinery, and (6) Motive Power.

(viii) A Trading and Profit and Loss Account is a statement prepared for the purpose of showing, firstly, what is the Gross Profit realised on goods sold after charging the cost of rendering such goods marketable and, secondly, the amount of Net Profit earned after charging general administration and office expenses *plus* interest on Capital. Three general questions to be considered are :—

- (1) Is the Gross Profit, *i.e.*, the margin between the works cost *plus* selling expenses and selling price sufficient in amount to provide for necessary general expenses and for net profit ?
- (2) Are the expenses, taken as a whole, justified by the size of business ?
- (3) Are the percentages of Gross Profit and Net Profit on sales sufficiently high and are those percentages fairly constant ?

(ix) In comparing the gross profit of one year with that of another it is true, theoretically, that the ratio of gross profit to sales is not affected by the amount of these sales. But in practice, the amount of sales does affect the ratio. The explanation is that if a concern is equipped for a given normal output the prime cost per article on a maximum output will be somewhat less than the corresponding prime cost of an output of 75 per cent. of the maximum. This is not a question of standing expenses; it is one of pure prime cost. When working at full capacity it is usual that the workers work at their best. When, therefore, it is noticed that with slack times the rate of gross profit goes down the explanation is not necessarily that prices have gone down, but it is probable that with slackness has come a falling off in the efficiency of the factory as a whole. Gross profit shows clearly the margin between works cost *plus* selling expenses and selling price but it does not show, and cannot show, how the buying and selling respectively contribute to this result. If the rate is very low this may be due to bad buying or wasteful use of labour or material which are matters affecting the producing side of the accounts or it may be due to selling at too low a price. In practice a small gross profit is often due to all these faults. Directly the accounts for several years are put together and compared, a great deal of additional light is let in upon the concern, and much valuable information obtained.

(x) Expenses which appear in the Profit and Loss Account have also some relation to turnover but not that close and direct relation which works cost of manufacture has. For example, rent, salaries and general office expenses are not materially affected by an ordinary increase or diminution in the year's sales. They have to be paid irrespective of the value of the year's receipts. To show therefore the exact proportion which each item in the Profit and Loss Account bears to sales or to purchases or to labour gives little information which leads to useful action. Nevertheless, the various headings in the Profit and Loss account should be compared with corresponding figures for previous years. Where comparative Profit and Loss accounts for two or three years are prepared there is no limit to the questions which may be asked on the accounts. All important fluctuations should be noted and if a question does not always hit the intended mark it sometimes calls forth other information equally valuable.

(xi) A Balance Sheet is a classified summary of the debit and the credit balances remaining in the ledgers after the Manufacturing and Trading and Profit and Loss Accounts have been prepared. On one side it contains the assets of the concern and on the other the liabilities, capital, reserves and the balance, if any, at the credit of Profit and Loss Account. It might be useful to offer a few remarks on some of the important items special to the Balance Sheets of Government commercial concerns.

*Government Capital Account.*—When it is decided to introduce commercial accounts in a Government concern the first step taken is to value all its assets and to ascertain all its liabilities on that date. The difference between the aggregate of the values of the assets and the aggregate of the liabilities is taken to the head "Government Capital Account". The commercial books are opened by debiting the several asset accounts and crediting the liability and "Government Capital" accounts. The procedure adopted thereafter

with regard to receipts and payments of the concern varies according to whether the concern works under the rules in Chapter 2 of the Account Code or not.

*Government (Suspense) Account.*—This occurs on the Liability side of the Balance Sheets of Chapter 2 concerns. The amounts payable by a concern to Government on account of interest on capital, leave, pension and provident fund contributions, audit fees, etc., are taken to this head by debit to the Profit and Loss Account. The concern either discharges this liability by issuing a cheque in favour of Government on its Personal Ledger Account or the Accountant General, on receipt of a copy of the Balance Sheet, withdraws the amount from the Personal Ledger Account and intimates the fact of the withdrawal to the concern so that the necessary account entries in connection with the reduction in the balance of the Personal Ledger Account may be made.

*Depreciation Reserve.*—In the Balance Sheets included in this Appendix the fixed assets are, as a general rule, shown at their original value or at their value at the time of the inauguration of the commercial accounts in the concerns. The depreciation provided for them is taken to the head "Depreciation Reserve". The depreciation is usually written off on the "Straight line" method, and a register of all the assets, showing the details of the depreciation provided on each asset working up to the total of the reserve in the Balance Sheet, is maintained in the concern. The rates of depreciation have been fixed on the assumption that all ordinary maintenance and repair charges will be debited to revenue and the sanction of competent authority taken before any amounts are debited to depreciation reserve on renewals and replacements.

*Land.*—The amounts shown under this head include only amounts actually paid by Government for land and do not include any value for lands for which Government itself had not to pay though such lands may now be worth a considerable amount.

*Other Fixed Assets.*—As in ordinary commercial practice, the value placed in the Balance Sheets on these assets is the amount ascertained actually to have been spent on them or, where the actual value is not available, an estimate of the amount spent. Where a different basis of valuation, e.g., cost of present replacement with due regard to the condition of the asset, has to be adopted for special reasons, the orders of competent authority are obtained. The market value of these assets at any time will differ from the value at which these assets are shown in the Balance Sheet.

*Live Stock.*—This is generally valued by a competent technical expert who is not immediately in charge of the concern. Appreciation as well as depreciation is taken into account.

*Floating Assets.*—Floating Assets such as consumable stores, stock in trade, work in progress, etc., are valued with reference to market price or cost price whichever is less. Stock-taking, as far as possible by an agency independent of the concern, is insisted on and it is seen that orders of competent authority are obtained for writing off the value of unserviceable and lost stores.



(xii) There is not usually much to comment on in a Balance Sheet. This statement does not show whether or not assets such as buildings are well situated and suitable for their purpose, but in the case of buildings one may form some idea as to whether a rent based on their value is, or is not, too large a charge for the business to bear. It should be ascertained what charge has been made against Revenue in each year by way of depreciation and upkeep of buildings and other fixed assets. General points to consider in a Balance Sheet are :—

- (a) Are the fixed assets suitable to the business both in character and value ?
- (b) Does the business justify large additions to fixed assets ?
- (c) Is the quantity of stores on hand maintained at a proper level and unnecessary accumulation avoided thereby diminishing the necessity for writing off stores which become obsolescent or depreciate in one way or another ?
- (d) What is the relation between the amount of the Debtors and the amount of the Creditors ? It is generally accepted that book debts should exceed in total the trade liabilities. If credit sales exceed credit purchases (as they generally do) the value of the debtors accounts should exceed the value of the creditors.

## SECTION 2.

(xiii) The audited accounts of the following concerns appear in the appendix for the first time :—

- (1) Currency Note Press, Nasik Road (under the Rules in Chapter 2 of the Account Code).
- (2) Indian State Broadcasting Service.
- (3) Indian State Air Service.
- (4) The Imperial Veterinary Serum Institute, Izatnagar.
- (5) Office of the Sugarcane Expert, Coimbatore.

(xiv) In respect of practically every concern the accounts for the years 1929-30 and 1930-31 are given in this volume and in many cases comparative figures for earlier years are given in the reviews under the heading "Summary of results". In paragraph 12 of the report of the Central Public Accounts Committee on the accounts of the year 1928-29 the Committee made it clear that what they want is a comparison of the results of a series of years including those of the latest year for which audited figures can be made available. Provided the Public Accounts Committee meetings are in future held not earlier than August in each year it should be possible to complete the audit of a few of the Government of India concerns for the latest financial year, *viz.*, for the year immediately preceding that during which the Public Accounts Committee meets and to furnish the required information in the form of a memorandum to the Public Accounts Committee. As the Appendix containing accounts and reviews is sent to press in the month of January following the year to which the Appendix relates it is not feasible to incorporate the figures for the next financial year in the Appendix. If possible a memorandum in the

following form giving figures in respect of accounts for 1931-32 which have been audited will be furnished to members of the Public Accounts Committee :—

Grant No.....		Name of concern .....		
Particulars.		Year 1931-32 latest (financial year).	Year 1930-31 as per Appendix.	Brief notes on important fluctuations.
Turnover . . . . .				
Gross $\frac{\text{Profit.}}{\text{Loss}}$ . . . . .				
Percentage of Gross $\frac{\text{Profit}}{\text{Loss}}$ to turnover —				
Net $\frac{\text{Profit}}{\text{Loss}}$ . . . . .				
Percentage of Net Profit to turnover .				
Cost of Production (of certain important Products).				

(xv) Financial control at Government of India commercial concerns continues to be satisfactory. In the opening Chapter of the Appendix to the Appropriation Accounts of the Central Government (Civil) for the year 1929-30 special attention was invited to large sums which had to be written off in the accounts of Government of India commercial concerns under the head "Loss on Stores" during the years 1928-29, and 1929-30. Although the aggregate amount representing stores losses during the year 1930-31 is below that for 1929-30 there are some substantial figures representing such losses against this head in the accounts of a few concerns for the year under review. The accuracy of the amounts representing the value of stores in the balance sheets of these concerns receives the constant attention of Government commercial auditors and the fact that there is only a small reduction in the amount representing losses written off during 1930-31 may indicate that the importance of the stores control question has been receiving more attention on the part of the management inasmuch as efforts have been made to get the stores valuation figures reasonably accurate. To do that sanction to write-off losses due to deficiencies, obsolete stock, etc., has had to be obtained and the losses must appear in commercial accounts. If management is slack experience shows that it is the stores records which are the first to become unreliable and this invariably opens up loopholes for irregularities. It is believed, however, that a better appreciation of the responsibility of the management in this direction is bringing about a general strengthening of control at Government commercial concerns throughout India, and it remains to be seen from an examination of the accounts for the next few years whether officers in charge of concerns are devoting the necessary attention to stores control and have taken adequate action to have the amounts representing the value of stores in their books as true as possible.

(xvi) The following comparative statement has been prepared for the purpose of furnishing a picture of the net trading results at Government of India commercial concerns during the past three years. For further details a reference may be made to the financial reviews and accounts which appear in this Appendix. A notable feature of the accounts for 1930-31 is the reduction in profit earned, or the increase in loss incurred, at the majority of these

concerns and it may be said that subject to a few exceptions such as the Northern India Salt Revenue Department and possibly the Mints, Government of India commercial concerns have not escaped the result of the growing trade depression during the year under review. This is particularly noticeable in the accounts of the Bengal Pilot Service, the Lighthouse Department and the Imperial Institute of Veterinary Research. On the other hand the profit on salt shows a substantial increase and the losses on the Andamans Shipping and Marine Departments have decreased.

Concern.	Turnover.			Net Profit or Surplus of Income over Expenditure [Loss or Deficiency (—)].			Reasons for fluctuations.
	1928-29.	1929-30.	1930-31.	1928-29.	1929-30.	1930-31.	
1. Security Printing India including Central Stamp Store.	Rs. 28,56,284	Rs. 24,96,470	Rs. 23,21,097	Rs. 3,57,261	Rs. 3,21,950	Rs. 93,792	Output in 1930-31 amounted to Rs. 16,60,786 against Rs. 20,39,060 during 1929-30. This decrease raised the cost of production which together with a fall in sales was responsible for the decrease in profits for 1930-31.
2. His Majesty's Mint, Calcutta	70,87,075	51,60,824	37,89,529	17,44,709	35,85,182	6,94,498	The heavy reduction in profits in 1930-31 is due to :— (a) Manufacture of Nickel coinage, which earns a profit, was only 46% of that of 1929-30. (b) Heavy silver coinage, which is unprofitable, as compared with the year 1929-30. (c) Loss of 33 working days on account of a strike. (d) Inclusion of interest on Capital in the accounts for the first time.



3. His Majesty's Mint, Bombay	34,55,660	1,72,72,660	95,67,404	—6,78,833	—12,67,121	—15,52,315	This Mint is becoming more of a service concern. Mintage orders are decreasing and the results of working from a commercial point of view are therefore becoming more adverse.
4. Northern India Salt Revenue Department.	..	34,11,174	29,49,128	—3,58,006	55,750	5,27,567	The improvement in working results during 1930-31 as compared with 1929-30 was due to :— (a) The abnormally high production during 1930-31 resulted in an appreciable reduction in the cost of manufacture per maund. (b) Reduction in (i) Royalty payments and (ii) Overhead charges.
5. Opium Department, Ghazi- pur.	3,25,49,524	2,74,19,155	2,22,98,903	1,59,45,407	1,37,20,573	1,14,41,693	Note.—The results given herein relate to the year ended 30th September in each case. The decrease in Net Profit earned during the year ended 30th September 1931 is mainly due to reduced sales of Provision Opium (4,122 chests as against 4,931 during the year ended 30th September 1930) in accordance with the policy of Government.
6. Mathematical Instrument Office, Calcutta.	11,23,247	9,49,975	8,13,727	12,429	—21,250	—33,441	The increase in loss during 1930-31 is due to a fall in manufacture and sales consequent upon a smaller demand for instruments and for repair work generally.

Concern.	Turnover.				Net Profit or Surplus of Income over Expenditure [Loss or Deficiency (—)].				Reasons for fluctuations.	
	1928-29.	1929-30.	1930-31.		1928-29.	1929-30.	1930-31.			
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.			
7. Imperial Institute of Animal Husbandry and Dairying, Bangalore.	1,03,298	1,02,848	1,13,291		38,364	37,704	37,610	Cost of Education and Research.		
	..	..	..		-3,557	-12,765	1,000	Profit or Loss (—) "Commercial".		
8. Do. Wellington ..	77,709	76,223	77,275		-13,754	13,350	15,332	Cost of Education and Research.		For Fluctuation in working results
	..	..	..		-19,150	-14,700	-35,376	Profit or Loss (—) "Commercial".		attention is invited to the financial
9. Imperial Cattle Breeding Farm, Karnal.	1,38,886	1,70,720	1,56,260		82,127	94,791	96,768	Cost of Education and Research.		reviews of the respective concerns.
	..	..	..		51,402	42,460	6,991	Profit or Loss (—) "Commercial".		
10. Government Creamery, Anand.	83,188	94,647	76,994		30,475	31,461	28,887	Cost of Education and Research.		
	..	..	..		325	15,442	8,699	Profit or Loss (—) "Commercial".		
Total for concerns 7 to 10	4,03,021	4,44,438	4,23,820		1,64,720	1,77,306	1,78,597	Cost of Education and Research.		
	..	..	..		29,020	30,437	-18,686	Profit or Loss (—) "Commercial".		
11. Imperial Institute of Agricultural Research Pusa.—										
(1) Cultivation Experiments	56,266	73,337	68,879		-37,850	-58,049	-73,027	The increase in the deficit for 1930-31 is mainly due to lower prices being realised for farm produce and lower crop production due to poor rainfall.		

(2) Cattle Breeding Expenditures, (Sales)*.	31,001*	26,975*	17,289*	-55,223	-65,331	-53,089	The decrease in turnover during 1930-31 is due to (i) Decrease in the quantity of milk produced owing to the sale of cross-bred cows; (ii) Decrease in the quantity of milk sold; (iii) Loss in making ghee from the surplus milk.
(3) Sugar Cable Service (Receipts).	24,183*	*22,403	*16,528	1,690	1,149	-2,638	The decrease in receipts is due to the heavy fall in the membership of the service on account of the depression in the world's sugar trade.
(4) Kitchen Garden (Receipts)*	*1,242	*1,051	*907	-27	13	-71	The deficit in 1930-31 is due to (i) Low prices of vegetables, (ii) low yield of mangoes and peaches, (iii) Potatoes worth Rs. 100 destroyed by a disease.
Total for all activities ..	1,12,692	1,13,766	1,03,603	-91,420	-1,22,218	-1,34,125	
12. Imperial Institute of Veterinary Research, Muktesar, including—							
(1) Imperial Veterinary Serum Institute, Izatnagar (Receipts)†.	†14,68,421	†15,60,237	†12,00,381	*7,39,625	*7,82,183	*3,76,328	*This shows surplus of receipts over expenditure but cannot be regarded as the true profit of the Institute in the commercial sense since interest on capital, depreciation on wasting assets, pensionary contribution, audit fee, etc., have not been taken into account. The reduction in the surplus on a cash basis is due to a smaller demand for the products of the Institute.

Concern.	Turnover.		Net Profit or Surplus of Income over Expenditure [Loss or Deficiency (-)].				Reasons for fluctuations.
	1928-29.		1929-30.		1930-31.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
(2) Dairy attached to Muktesar.	5,222	5,114	6,296	1,301	-1,163	2,014	The increase in profit during 1930-31 is mainly due to the decrease in the cost of the upkeep of animals as a result of the fall in the prices of commodities.
13. Forest Department, Andamans, Martin and Co.'s Agency ..	16,19,859	18,81,590	18,43,024	49,781	3,32,418	1,98,863	For fluctuations in working results see the Financial Review.
14. Bengal Pilot Service (*Pilotage Receipts).	8,31,001	8,02,676	7,33,909	1,582	1,16,873	1,88,584	
	*18,87,218	*18,83,104	*16,26,234	55,791	7,039	-1,58,045	The deficit for the year under review is due to a large decrease in pilotage receipts owing to the general trade depression.
15. Lighthouse Department (*Receipts of Light dues).	..	*13,39,832	*11,76,249	..	5,63,264	2,87,742	The decrease in the surplus is due to the general trade depression and to a reduction in the rate of collection of light dues from ships calling at Aden and Perim which did not call at a Port in British India.
16. Shipping Department, Andamans (*Earnings).	*5,25,788	*6,33,994	*7,10,086	-4,23,927	-3,41,108	-3,11,592	The reduction in the deficit is due to an increase in the tonnage shipped.
17. Marine Department, Andamans.	81,180	87,720	1,14,153	-2,85,744	-2,72,709	-1,61,154	For fluctuations in working results see the Financial Review.

18. Executive  
Office, Andamans—

## Commissaries—

Dairy Farm	..	..	19,229	44,169	48,642	5,839	2,734	1,766	Do.
Bakery ..	..	..	14,973	14,183	14,119	3,143	2,626	1,939	Do.
Butchery	..	..	42,320	37,934	34,276	4,120	196	19,775	Increase in loss due to importation of slaughter cattle from India. Loss on mutton due to high im- portation charges and cost of stall feeding of sheep.

(xvii) An audit certificate in the usual form is ordinarily given by the Audit Officers of this Branch on the Balance Sheet of each concern the accounts of which are audited by them. The certificate is given below and to avoid repetition it has not been printed at the foot of each Balance Sheet in this volume.

"I certify that I have obtained all the information and explanations that I required and that, subject to the remarks in the Audit Report, the Balance Sheet exhibits, in my opinion, the true position of.....(name of concern)....., according to the best of my information and explanations given me and as shown by the books of .....(name of concern).

(Sd.)\_\_\_\_\_

Audit Officer."

(xviii) Any remarks in the several audit reports which have qualified the position shown in the Balance Sheets or are of sufficient importance to be included in this Appendix have been given in the paragraphs relating to the various concerns.

NEW DELHI ;

17th February 1932.

D. COLIN CAMPBELL,

*Director of Commercial Audit.*

## CHAPTER II.

## Government of India—Finance Department concerns.

SECURITY PRINTING INDIA, NASIK ROAD.  
(INCLUDING CENTRAL STAMP STORE).

SECTION I.—FINANCIAL REVIEW BY COLONEL SIR GEORGE WILLIS, KT., C.I.E.,  
M.V.O., MASTER, SECURITY PRINTING INDIA AND CONTROLLER OF STAMPS  
ON THE ACCOUNTS OF THE YEAR 1930-31.

1. I was in charge throughout the year in question. Mr. G. W. Coster, Deputy Controller of Stamps performed the duties of Deputy Master in addition to his own duties from 17th February 1930 to 17th October 1930 in the absence of Lieut.-Colonel W. E. Perry, M.C., R.E., who returned from leave on 18th October 1930 and assumed the duties of his appointment. Mr. M. S. Srinivasan, Assistant Controller has been officiating as Deputy Controller of Stamps in the vacancy due to Mr. Coster's absence on leave since 1st November 1930.

2. The Press produced the following new issues during the year :—

A series of six postage stamps depicting buildings in and around New Delhi, commemorating the inauguration of the new Capital. The denominations were  $\frac{1}{4}$  anna to 1 rupee and the quantity issued was one month's average consumption.

A complete new series of 12 stamps with pictorial designs for Jaipur State, denominations  $\frac{1}{4}$  anna to Rs. 5. Four of these denominations were also issued with a 'Service' overprint.

Various denominations of ordinary and service postage stamps for Bhopal State.

A series of 8 'Entertainment' stamps for Bengal, to new designs.

British Indian stamps, both postal and fiscal overprinted for various States, including a Kuwait 'Service' series.

Post Office Cash Certificates 1930.

The Delhi Commemorative stamps and the set for Jaipur State have been very favourably noticed on account of their design and execution by the Philatelic Press in England and Mr. Barr the engraver who is responsible for the design and the making of the plates is to be much congratulated thereon.

3. The ordinary work of the Press showed very plain signs of a diminution of demand for practically all products. This lessened demand was first evident about the middle of 1930 and by the end of the year had become very serious from the point of view of the profit earning capacity of the Press. The necessary output was very small whilst of course the overheads could be diminished only slightly. The following comparison of the issues for the year

under review and the previous year shows the extent of the decrease in the public demand.

						Issues during 1929-30.	Issues during 1930-31.
<i>Postcards—</i>						Millions.	Millions.
Single	..	..	..	..	..	295½	288½
Reply paid	..	..	..	..	..	77	76½
<i>Envelopes—</i>							
Square (one anna)	..	..	..	..	..	93½	88½
Commercial	..	..	..	..	..	6	8
<i>Impressed stamps—</i>							
Judicial and Non-judicial (anna series)	..	..	..	..	..	18½	16½
Madras Copy stamps	..	..	..	..	..	8	4½

4. In spite of the smaller amount of work done, which would be an excuse if any were needed for an increase, the percentage of waste diminished considerably in all departments except the adhesive stamp section. The increase in this latter section was due to the rush order for the Delhi Commemoration stamps, mentioned above which were difficult to print and had to be printed at top speed at the worst season of the year for that class of work. The general result is therefore eminently satisfactory as showing increased efficiency in the work of the Press.

5. There was an unfortunate accident in the Electric Power House during the year. One of the two larger solid injection oil engines damaged itself during running to such an extent that it was irreparable. The immediate cause was the failure of a bolt holding one of the brasses of a connecting rod on the crank-shaft. It failed without warning and a searching investigation showed that in all other respects the engine was in good order and working correctly. The broken parts were carefully examined by the staff and the representatives in India of the manufacturers, and the broken bolt was also sent home to the makers for examination. Visual and other tests did not show whether the bolt failed owing to an inherent flaw or through fatigue, so that the real cause of the accident remains undetermined. No damage was caused to the dynamo driven by the engine so that it could be used together with the flywheel and belt driving gear by purchasing a new engine from stock. Fortunately an engine of exactly the right size and speed was found in stock in Bombay and was purchased, erected and set to work as quickly as possible. The new engine cost rather less than the amount in the depreciation reserve at credit of the destroyed engine.

6. A new motor lorry was also purchased to replace a worn out lorry from the depreciation reserve at credit of the latter; supplemented by the scrap value realised for it. The original lorry had had five years of heavy and continuous work and as it was rather small for its job its useful life of over five years was satisfactory.



7. It had been expected that the electrotyping plant for the complete manufacture of letterpress stamp plates would have been received during the year but the settlement of details and the difficulties of obtaining all necessary information regarding the latest methods of the comparatively new process of chromium plating so delayed matters that practically none of the plant was received during the year, though the order had been sent in October.

8. Taking advantage of the lessened output required classes were started for the apprentices who could be spared from their ordinary work on the machines in those branches of the printing trade which do not form a normal part of the activities of this Press. For instance they received practice in hand compositor's work and in transferring for lithography, whilst those whose main work was letterpress printing were given experience on the offset lithographic machines and *vice versa*. Most of the apprentices are showing themselves to be keen and capable and there should be no difficulty in finding suitable outside employment for those for whom there is no room in the Press on completion of their time. One apprentice who is undergoing a course in England at Government expense is reported as doing well.

9. In view of the complete report of the Commercial Audit Department on the accounts there is no need for further comment thereon.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

### 10. Summary of results :—

	1930-31.	Per cent. on Sales.	1929-30.	Per cent. on Sales.	1928-29.	Per cent. on Sales.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sales . . .	23,21,097	..	24,93,470	..	28,56,234	..
Cost of Goods sold .	19,37,182	..	19,22,479	..	21,83,671	..
Gross Profit . . .	3,83,915	16.5	5,73,992	23.0	6,72,613	23.5
Interest on Capital .	—2,70,804	11.6	—2,71,475	10.9	—2,83,912	9.9
General charges (less miscellaneous re- ceipts).	—19,319	0.8	+19,433	.8	—31,410	1.1
Net Profit . . .	93,792	4.1	3,21,950	12.9	3,57,261	12.5
Capital . . .	52,50,609	..	48,28,058	..	48,02,582	..
Percentage of Net Profit on Capital.	1.8	..	6.6	..	7.4	..

11. The cost of production during 1930-31 compares as follows with the two previous years :—

	1930-31.		Corresponding percentages in.	
	Amount.	Percentage on outturn.	1929-30.	1928-29.
	Rs.			
Materials used . . . . .	10,68,547	49·4	50·0	50·5
Operating wages and salaries. . . . .	74,093	3·4	3·1	2·8
Control wages . . . . .	39,983	1·9	1·7	1·4
Packing . . . . .	1,02,823	4·8	4·4	3·8
Indirect charges . . . . .	3,33,471	17·7	14·5	14·8
	16,68,917	77·2	73·7	73·3
Add opening balance of work in progress. . . . .	50,133	2·3	2·1	1·3
	17,19,050	79·5	75·8	74·6
Less Closing balance of work in progress. . . . .	58,254	2·7	1·8	2·0
Cost of production. . . . .	16,60,796	76·8	74·0	72·6
Value of outturn . . . . .	Rs. 21,64,732	..	Rs. 27,17,449	Rs. 29,26,152

The main reason for the increased cost of production during 1930-31 was the reduction in the outturn.

During 1930-31 the work detailed below was carried out in the Currency Note Press on behalf of the Security Printing :—

	Rs.
Cash Certificates . . . . .	10,825
New Delhi Inauguration and Jaipur Stamps . . . . .	7,359

12. Details of the Indirect charges for three years are set out below :—

	1930-31.	1929-30.	1928-29.
	Rs.	Rs.	Rs.
Indirect charges—			
Engraving . . . . .	9,645	13,279	11,479
Power . . . . .	8,903	7,291	5,434
Water . . . . .	7,105	7,921	9,123
General overheads . . . . .	3,57,818	3,64,540	4,05,944
Total . . . . .	3,83,471	3,93,031	4,32,030

13. The trend of *Sales* in the last three years can be followed from the figures in the statement below :—

Sections—	1930-31.	1929-30.	1928-29.
	Rs.	Rs.	Rs.
Offset . . . . .	4,46,503	5,57,936	6,32,679
Embossed Envelopes . . . . .	4,73,373	4,98,450	6,03,375
Registration Envelopes . . . . .	1,44,903	1,77,052	2,22,174
Post Cards . . . . .	9,51,307	9,43,917	10,67,481
Adhesive Stamps . . . . .	2,68,845	2,61,094	2,74,772
Booklets . . . . .	36,166	52,971	55,803
Total	23,21,097	24,96,470	28,56,284

14. The percentages of *Waste* during 1930-31 and the two previous years were as follows :—

—	1930-31.		Percentages of waste on output.		
	Examined output.	Waste destroyed.	1930-31.	1929-30.	1928-29.
Adhesive Stamps . . . . .	20,74,027	63,651	3.07	1.69	2.09
Offset . . . . .	2,28,27,606	3,09,450	1.36	1.79	1.07
Registration Envelopes . . . . .	54,60,779	1,03,774	1.92	2.78	2.28
Booklets . . . . .	27,68,000	21,518	0.78	0.91	2.02

The increased percentage of waste in the Adhesive stamps section arose in printing and perforating the New Delhi Inauguration Stamps. This was a rush order, carried out on new designs under adverse conditions.

15. The following capital expenditure was incurred during 1930-31 :—

	Rs.	Rs.
<i>Buildings.</i>		
Water Meters . . . . .	2,199	
Windows to Quarters . . . . .	72	
		2,271
<i>Plant and Machinery.</i>		
Oil Engine . . . . .	13,468	
Parts for Engine . . . . .	23	
		13,491
<i>Electric Installations.</i>		
Fans . . . . .		633
Carried forward..		16,395

*Minor Equipments.*

	Rs.	Rs.
Brought forward .		16,395
Hand paging machine . . . . .	252	
Syran . . . . .	393	
Motor Lorry . . . . .	2,720	
Singer Machine . . . . .	800	
Pump in well . . . . .	1,917	
Pump in Power House . . . . .	400	
		<u>6,482</u>
<i>Furniture and Fixtures.</i>		
Platforms for supervisors . . . . .	..	180
Total additions . . . . .	..	<u>23,057</u>

16. The details of the stock and store balances are :—

	31st March 1931.	31st March 1930.
	Rs.	Rs.
Paper, Inks, etc. . . . .	11,53,137	9,71,338
Packing cases . . . . .	1,772	3,620
Work in progress . . . . .	58,254	50,133
Finished stocks . . . . .	7,22,200	8,69,577
Total . . . . .	<u>19,35,363</u>	<u>18,94,668</u>

## SECURITY PRINTING, INDIA, NASIK ROAD.

## 17. Balance Sheet as at 31st March 1931.

	1930-31.	1929-30.		1930-31.	1929-30.
<i>Liabilities.</i>	Rs.	Rs.	<i>Assets.</i>	Rs.	Rs.
Sundry Creditors . . .	4,37,779	5,32,038	Land and Buildings . .	29,29,668	29,27,397
Government Suspense Account.	3,16,536	5,07,506	Electric installation . .	42,553	41,920
Employees Security deposits	4,197	4,598	Plant and machinery . .	8,39,626	8,40,910
Depreciation Reserve . .	5,44,334	4,33,355	Minor Equipment . . .	41,317	56,529
Leave Reserve . . .	9,764	9,499	Furniture . . .	53,341	53,266
Government Capital Account.	52,50,609	48,28,058	Preliminary Expenses . .	10,376	1,06,477
Profit and Loss Account . .	93,792	4,77,933	Stock and Stores . . .	19,35,363	18,94,668
			Sundry Debtors . . .	2,72,781	4,29,097
			Currency Note Press . .	37,535	53,497
			Investments of Security deposits.	4,196	4,597
			Cash in Bank in Personal Ledger Account.	4,85,157	3,78,614
			Cash in hand and stamps . .	5,098	6,135
Total . .	63,57,011	67,93,017	Total . .	63,57,011	67,93,017

A. K. NARASIMHACHARI, Accountant, Security Printing, India, Nasik Road.	GEORGE WILLIS, Master, Security Printing, India, Nasik Road.	H. K. MALICK, Assistant Director of Commercial Audit, Bombay Circle.
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## SECURITY PRINTING, INDIA, NASIK ROAD.

## 18. Trading and Profit and Loss Account for the year ended 31st March 1931.

	1930-31.	1929-30.		1930-31.	1929-30.
	Rs.	Rs.		Rs.	Rs.
To opening balance of stock	8,69,577	6,76,933	By issues for booklets	..	23,335
To Cost of Manufacture	16,69,797	20,33,050	By Sales	23,21,097	24,96,470
To value of Cash Certificates	10,825	..	By Ending balance of stock	7,22,200	8,69,577
To Selling expenses of Central Stamp Stores.	1,10,824	1,04,407			
To New Delhi inauguration and Jaipur Stamps.	7,359	..			
To Gross Profit carried down	3,83,915	5,73,992			
Total	30,43,297	33,94,432	Total	30,43,297	33,94,432
To Interest	2,70,894	2,71,475	By Gross Profit b/d	3,83,915	5,73,992
„ extraordinary depreciation and stores written off.	15,890	..	By Miscellaneous receipts and adjustments.	12,965	19,433
„ Miscellaneous adjustments (previous periods).	16,394	..			
„ Net profit carried to Balance Sheet.	93,792	3,21,950			
Total	3,96,880	5,93,425	Total	3,96,880	5,93,425

## SECURITY PRINTING, INDIA, NASIK ROAD.

## 19. Stores account for the year 1930-31.

Stores.	Opening balance.	Values received.	Values Sold or disposed of.	Depreciation or write off.	Closing Balance.	Result of Stock veri- fication and revalua- tion if any.	Agency employed for revalua- tion or verification.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Paper . . . . .	9,00,972	12,12,999	10,47,123	—4,033	10,70,875	Minor differ-	Periodical
Ink . . . . .	18,570	15,639	17,304	3,256	13,633	ances, ad-	stocktaking
Miscellaneous stores	51,793	1,51,776	1,26,389	8,550	68,633	justed.	by a Deputy
Packing cases . .	3,619	1,00,975	1,02,823	..	1,772		appointed by the Master.
<b>Total</b>	<b>9,74,957</b>	<b>14,81,371</b>	<b>12,93,639</b>	<b>7,780</b>	<b>11,54,910</b>		

A. K. NARASIMHACHARI, GEORGE WILLIS,  
 Accountant, Master,  
 Security Printing, India, Security Printing, India,  
 Nasik Road. Nasik Road.

H. K. MALICK,  
 Assistant Director  
 of Commercial Audit,  
 Bombay Circle.



## HIS MAJESTY'S MINTS, CALCUTTA AND BOMBAY.

### GENERAL REMARKS INTRODUCTORY TO THE REVIEWS OF THE ACCOUNTS OF THE MINTS.

20. Indian Mints produce, for circulation in India, silver, bronze, and nickel coins. Besides, they undertake jobs for outside departments and private individuals, the manufacture of medals for the Army department, the manufacture and testing of scales and weights for treasuries and currency offices, etc., and occasionally coinage work for Indian States, foreign countries such as Straits Settlements. Coinage is undertaken under the orders of the Controller of the Currency and all issues of coin are made to the local Currency office from which they are distributed.

21. At the suggestion of Messrs. Price, Waterhouse & Co., the question of the introduction of a suitable system of commercial and costing accounts in the Mint was taken up and investigated by an officer of the Commercial Audit Branch. Commercial accounts were first introduced in both the Calcutta and Bombay Mints in 1926, and after trial of more than one system the present arrangement of maintaining commercial books in addition to the regular Government accounts has been adopted. The commercial accounts are of the *pro forma* type explained in the introductory paragraphs of this volume. The scheme is, however, still in an experimental stage and the question of the retention of the commercial accounts is still under the consideration of the Government of India.

22. Towards the end of 1923-29 there was a redistribution of work between the two Mints. Calcutta now carries out most of the coinage work while Bombay is largely engaged on melting and refining of gold and silver. A special electrolytic refinery was constructed in the Bombay Mint in 1923-29. As a precautionary measure against possible heavy demands for coinage in future the minting plant of the Bombay Mint is maintained in readiness for work, and a small coinage programme is allotted to this Mint every year. By this means not only is the plant kept in order, but a trained staff is always available to meet any sudden demand for coinage. Until the reorganisation in 1928-29 uncurrent coins withdrawn from circulation in the Bombay Presidency, in the southern part of the Madras Presidency, in the Central Provinces and in the Punjab and North-West Frontier Provinces were remitted to the Bombay Mint. After the reorganisation Bombay deals with the uncurrent nickel and bronze coin collected in the Bombay Presidency only and with all uncurrent silver remittances except from Burma, Assam, and some parts of Bengal and Bihar and Orissa.

23. The following are the main divisions in both Mints :—

- (1) Melting Department (including Dross washing Department) in which bullion is alloyed to the correct fineness and cast into bars.
- (2) Mechanical Department, in which the various processes of minting are carried out, *i.e.*, rolling, adjusting, cutting out blanks, weighing, annealing, stamping, examining and packing.
- (3) General Workshop, whose primary function is the maintenance of the Mint Machinery



(4) Die and Medal Department.

(5) Electrical Department.

(6) Bullion Department, responsible for the receipt, issue and custody of bullion and coin accurate weighments, and verification of weights and balances, and examination of uncurrent and counterfeit coins.

(7) Stores Department.

In addition at the Bombay Mint there are Gold and Silver Refineries and a Merchants' Melting Department.

24. His Majesty's Assay Office is housed in the Bombay Mint but is an independent department in charge of an Assay Master.

Up to 1st October 1923 there was also an Assay Office at the Calcutta Mint, but this was closed as a measure of economy. Bombay with its gold and silver refining work occupies most of the time of the Assay Office, but assays are also done for the Calcutta Mint and for the public.

25. The commercial accounts as now compiled are intended to bring out (1) the net financial result of the operations of the Mints as a whole in a commercial form, (2) the assets and liabilities of the Mints, the net capital invested by Government in the Mints and the nature and amount of the different forms of assets in which the capital is held, (3) the profit or loss on the various denominations of coins manufactured in the Mints, (4) the results of the working of the workshop, the Medal and Die departments; the production costs of the various coins as a whole and as analysed under the various processes such as laminating, annealing, stamping, weighing; the cost of power, etc. All this information is not available in the Government accounts as compiled at present.

26. The following are the more important principles followed in the compilation of these accounts :—

- (a) The Workshop, and the Medal and Die departments are treated as service departments maintained for the Coinage department, and not as independent productive departments of the Mint. The underlying idea is that, apart from certain miscellaneous items of work executed by the Mint, such as the manufacture of medals for the Army Department, etc., the operations connected with coinage including the examination and recoinage of uncurrent coins constitute the main activities of the Mint and that the workshop and the Medal and Die departments are maintained in the Mint merely for the purpose of serving the coinage department. The fact that during their spare time these departments are allowed to take up work for other departments and private individuals does not affect the operation of this principle. The net financial results of the activities

of these two departments are therefore transferred to the account of coinage costs, as part of the general oncost.

(b) *Melting Charges*.—Charges incurred in melting and converting silver, nickel, bronze, etc., into bars, are compiled separately for each class of metal melted, from the information contained in the departmental and other initial records kept up in the Mint. The average rate per lakh of tolas of each class of metal melted and cast into bars is then worked out. The amount debitable to the Production Account of coinage is then calculated in accordance with this rate on the weight of bars broken down, i.e., rolled by the laminator for the particular class of coinage. The residue of the unallocated melting charges is treated as the melting cost of the unused bars in the store, and is shown as an asset in the accounts under "Work-in-progress" at the end of the year in the Melting department. The object of this procedure, at present confined to the Calcutta Mint where coinage is the more important function, is to debit a proper share of the melting charges to the coinage operations of a year.

(c) *Oncost* is sub-divided into Factory and General oncost. Factory oncost includes all the indirect charges of a general nature, which can be allocated to a separate department of the Mint, such as salaries, gas, rent, rates and taxes, charges on account of electricity consumed, depreciation on Buildings, Plant and Machinery of the departments. Common charges are allocated to the departments concerned on a suitable basis and distributed amongst the work orders in those departments on the basis of the direct labour charges incurred therein. All other indirect charges, which cannot be allocated to any particular department, are included under "General oncost". The net general oncost after deducting miscellaneous receipts, has been distributed to productive activities of the Mint in proportion to direct labour. In the case of the Bombay Mint the basis of the allocation of charges to Government has been the proportion of idle days to possible working days.

(d) *Standard silver*.—Silver bullion issued for coinage is valued at the rate of Re. 1 per standard tola, for the sake of convenience, as this unit is used in the bullion accounts and other records of the Mint. It is also the rate at which Government actually withdraws rupees from circulation for purposes of recoinage. As the face-value of the coin manufactured is also Re. 1 per tola, the commercial accounts must always show a loss on silver coinage operations; this loss really represents the cost of the coinage operation apart from the cost of material. Fine silver issued from Currency for the use of the Mint is adjusted in the Mint accounts by credit to the Currency department on the basis of the market price of silver on the date of transfer. Such silver issued by the Mint for the various jobs undertaken in the Medal and Die department is charged at the market rate

on the date of issue *plus* 20 per cent. The difference between the rate at which the Mint purchases the silver from Currency and the rate at which it is sold is treated as a miscellaneous profit accruing to the Mint.

(e) *Uncurrent coin*.—The Bullion office deals *inter alia* with the examination of uncurrent coins received from treasuries and currency offices. The loss on account of the withdrawal of uncurrent coins, being the difference between the nominal value and metal value at Re. 1 per standard tola of coins withdrawn from circulation, and a proportionate share of the Bullion office charges on account of their examination, are included in the Profit and Loss Account under the kind of coinage concerned. This procedure which has been accepted by the Government of India, is based on the principle that all gains accruing to the country from exercising the national prerogative of having its own coinage should be brought together as accurately as possible in one set of accounts.

(f) Interest on Capital has for the first time been included in the Calcutta Mint accounts for the year under review. Provision for pensionery liabilities has been included with effect from the year 1928-29.

27. A comparison of coinage costs in Calcutta and Bombay might seem to be a necessary part of a review of the accounts of the Mints. It has not been possible to include such a comparison owing to lack of the time that would be necessary to make a thorough investigation into the causes of differences so as to give satisfactory explanation. The Controller of the Currency has always considered that such a comparison is difficult and would not be particularly educative, owing to the different conditions existing at the two Mints. It must be realised that the Mints are part of the currency system of the country, and currency exigencies may have to ignore commercial account considerations, commercialisation is not in all cases necessarily a golden rule.

## HIS MAJESTY'S MINT, CALCUTTA.

### SECTION I.—FINANCIAL REVIEW BY THE MINT MASTER ON THE ACCOUNTS OF THE YEAR 1930-31.

28. The accounts of the Calcutta Mint for 1930-31 in a summarised form are affixed. Corresponding figures for the year 1929-30 are also given for comparison.

Owing to heavy demand for small coin, the Mint worked half overtime five days weekly for some time during the first half of the year just after the settlement of the strike referred to in paragraph 77 of last year's Review. The strike ended on 14th May 1930 and resulted in 33 working days of the year being lost. The demand for coinage however slackened considerably in the latter part of the year and consequently the total outturn was decreased by over 41 per cent. as compared with 1929-30.

29. The quantity and cost of coins manufactured during 1930-31 and 1929-30 were as follows :—

	1929-30.		1930-31.	
	Pieces.	Cost. Rs.	Pieces.	Cost. Rs.
Silver coins . . . . .	7,40,000	1,91,777	52,88,128	18,75,909
Nickel coins . . . . .	5,84,08,000	7,29,762	2,69,60,000	4,14,357
Bronze coins . . . . .	8,67,84,000	8,31,087	5,49,73,200	7,09,974
Total . . . . .	14,59,32,000	17,52,626	8,72,21,328	30,00,240

As compared with the year 1929-30 the value of coins manufactured during 1930-31 increased or decreased as follows :—

	Value of coins manu- factured.		Increased per cent.	Decreased per cent.
	1929-30. Rs.	1930-31. Rs.		
Silver . . . . .	1,86,324	18,29,922	882	..
Nickel . . . . .	46,63,500	19,44,000	..	58
Bronze (and copper) . . . . .	11,33,600	6,52,837	..	43
	59,88,424	44,26,729		

30. *Silver coinage.*—During 1930-31, 30,000 pieces Bhutan coins, 20,36,000 pieces half rupees and 32,22,128 pieces quarter rupees were minted against 20,000 pieces Bhutan coins, and 7,20,000 pieces quarter rupees only in 1929-30.

The detailed cost of manufacture per 1,000 pieces of these coins was :—

Item.	Cost per 1,000 pieces.		
	Bhutan.	Half Rupee.	Quarter Rupee.
Labour . . . . .	1.97	.85	.72
Stores . . . . .	1.43	.16	.09
Metal . . . . .	193.51	500.09	250.01
Dies . . . . .	..	.39	.45
Operative Loss . . . . .	1.60	.10	.47
Melting charges . . . . .	1.38	1.86	.66
Departmental Overheads . . . . .	4.79	2.37	1.88
General Overheads . . . . .	7.65	4.43	3.47
Total . . . . .	217.33	510.25	257.75

In the case of Bhutan coin cost of metal is, as in the previous year, at market rate instead of Rupee one per standard tola.

The corresponding costs for Bhutan and quarter rupee during 1929-30 were 281.63 and 258.53 respectively, but as was explained in the Review for that year they were not representative.

The credit taken to the Mint accounts for issues, was at the nominal value of the coins in the case of half and quarter rupees and the actual amount realised for Bhutan coins. The profit resulting therefrom is set out below :—

	No. of pieces manufac- tured.	Cost of manufac- ture.	Nominal value (value realized in case of Bhutan).	Profit or loss (—) on manufac- ture.	Cost per 1,000 pieces.	Nominal value per 1,000 pieces.	Profit or loss per 1,000 pieces.
				Rs.	Rs.	Rs.	Rs.
Half Rupees . . . . .	20,36,000	10,38,868	10,18,000	—20,868	510.25	500	—10.25
Quarter Rupees . . . . .	32,22,128	8,30,522	8,05,532	—24,990	257.75	250	—7.75
Bhutan . . . . .	30,000	6,520	6,390	—130	217.33	213	—4.33
				—45,938			

31. *Nickel Coinage.*—41,44,000 two-anna pieces and 2,28,16,000 one-anna pieces were manufactured during the year 1930-31 against 1,62,08,000 two-anna pieces and 4,22,00,000 one-anna pieces during the year 1929-30. The detailed cost of production is given below :—

				Cost per 1,000 pieces.	
				Two Anna.	One Anna.
Labour . . . . .				·64	·62
Stores . . . . .				·18	·12
Metal . . . . .				9.60	6.38
Dies . . . . .				·51	·44
Operative Loss . . . . .				·01	·01
Melting charges . . . . .				2.26	1.43
Coin boxes . . . . .				..	·18
Departmental Overheads . . . . .				1.83	1.77
General Overheads . . . . .				3.68	3.81
				18.71	14.76

Against the cost given above, the cost of production during 1928-29 was 16.42 and 12.26 respectively.

The chief reason for the increase in cost of 1930-31 was increased overhead charges due to decreased production.

The loss of 33 working days of the year on account of the strike and the new concessions granted to workmen (*vide* paragraph 77 of last year's review), as well as inclusion in the accounts of interest on capital during the year under review for the first time, also account for the increased cost.

As indicated in last year's Review the entire general charges have been debited to the Mint and no credit has been taken for idle days on account of a slack coinage programme.



The credit taken to Mint accounts for issues was at the nominal value of the coins and the profit resulting therefrom is set out below :—

Pieces.	No. of pieces manufactured.	Cost of manufacture.	Nominal value of outturn.	Profit on manufacture.	Cost per 1,000 pieces.	Nominal value per 1,000 pieces.	Profit per 1,000 pieces.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Two Anna . .	41,44,000	77,528	5,18,000	4,40,472	18.71	125	106.29
One Anna . .	2,28,16,000	3,36,829	14,26,000	10,89,171	14.76	62.5	47.74
Total . .	..	..	..	15,29,643	..	..	..

Increased cost and decreased outturn account for the very considerable drop in profit on nickel coinage during the year, *viz.*, Rs. 15,29,643 against Rs. 39,33,738 in 1929-30.

32. *Bronze coinage.*—The quantity of coins manufactured was :—

	1929-30 pieces.	1930-31. pieces.
Pice . . . . .	6,40,00,000	3,34,84,800
Half pice . . . . .	76,54,400	71,80,800
Pies . . . . .	1,51,29,600	1,34,97,600

The details of the cost per 1,000 pieces are as follows :—

	Single Pice.	Half Pice.	Pie pieces.
Labour . . . . .	.68	.59	.59
Stores . . . . .	.18	.17	.11
Metal . . . . .	6.05	3.00	1.96
Dies . . . . .	.61	.52	.59
Operative Loss . . . . .	.01	.01	.01
Melting Cost . . . . .	1.43	.62	.42
Coin box for packing . . . . .	.25	.11	.08
Departmental Overheads . . . . .	1.91	1.74	1.64
General Overheads . . . . .	3.90	3.51	3.80
Total . .	15.02	10.27	9.2

The corresponding cost in 1929-30 was 11.73, 8.65 and 6.33 for pice, half pice and pie pieces respectively.

As in the Nickel, the same factors account for the increased cost in bronze coinage, *viz.*, decreased demand and consequently decreased outturn, grant of additional concessions to workmen, loss of 33 working days due to strike and inclusion of interest on capital in the accounts for the first time—Credit being taken for issues at nominal value, the resultant profit or loss works out as below :—

Coinage.	No. of pieces manufactured.	Cost of manufacture.	Nominal value of outturn.	Profit or loss (—) on manufacture.	Cost per 1,000 pieces.	Nominal value per 1,000 pieces.	Profit or loss (—) per 1,000 pieces.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pice . . . . .	3,34,84,800	5,03,030	5,23,200	20,170	15.02	15.62	.60
Half pice . . . . .	71,80,800	73,780	56,100	—17,680	10.27	7.81	—2.46
Piepieces . . . . .	1,34,97,600	1,24,190	70,300	—53,890	9.20	5.21	—3.99
Total . .	..	..	..	—51,400	..	..	..

In addition to the above, the following copper coinage was undertaken on behalf of Pudukkottai and Bhutan Durbars :—

Durbar.	Coinage.	No. of pieces manufactured.	Cost of manufacture per 1,000 pieces.
			Rs.
Pudukkottai . . . . .	Aman Cash . . . . .	8,00,000	11.02
Bhutan . . . . .	Copper coin . . . . .	10,000	16.00

Credit being taken for the actual amount recovered from the Durbars concerned, the resultant profit or loss works out as below :—

Coinage.	No. of pieces manufactured.	Cost of manufacture.	Amount realised.	Profit or loss (—) on manufacture.	Cost per 1000 pieces.	Realized per 1000 pieces.	Profit or loss(—) per 1000 pieces.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Aman Cash . . . . .	8,00,000	8,813	3,054	—5,759	11.02	3.82	—7.20
Bhutan copper coin . . . . .	10,000	160	153	—7	16.00	15.3	—0.7
				—5,766			

The loss on Aman Cash is due to the heavy overheads allocated to this coinage.

During 1929-30 profit on bronze coinage amounted to Rs. 3,07,513 against the loss of Rs. 51,400 during the current year. In addition to this Rs. 5,766 represent loss on account of copper coinage.

As in the case of nickel, in these cases also entire general charges have been debited.

**33. Profit and Loss Account.**—The net profit during 1930-31, amounts to Rs. 6,94,498 against Rs. 35,85,182 in the year 1929-30 as will be clear from the Trading and Profit and Loss Account.

It was pointed out in last year's Review that the total profit depends largely on the quantity of nickel coins minted as the nominal value of these coins is much greater than the cost of manufacture. This explains the heavy reduction in profit during this year's working as the nickel coinage was only 46 per cent. of that of 1929-30; heavy silver coinage programme is also another potent factor as explained in paragraph 26(d) *ante*; amongst other reasons which affected the profit are loss of 33 working days on account of strike and inclusion of interest on capital in the account for the first time.

The profit for the year 1930-31 with that for the three preceding years is shown below :—

	Rs.
1927-28 . . . . .	15,53,394
1928-29 . . . . .	17,44,709
1929-30 . . . . .	35,85,182
1930-31 . . . . .	6,94,498



**34. Government Capital Account.**—The net capital debt due to Government of India by the Calcutta Mint as at 31st March 1931, exclusive of the balance of Currency Department and the profit of Rs. 6,94,498 which accrued during the year, worked out to Rs. 48,68,580. The corresponding figure at the end of 1929-30 was Rs. 16,02,028.

Increase in capital account is partly due to transfer of accrued profit during 1929-30 as part of capital account. Taking the profit and the balance of capital account together as capital there is roughly an increase of capital amounting to about four lakhs and increase in finished coin balance partly accounts for this.

**35. Plant and Machinery.**—It will be seen from the Balance Sheet that Plant and Machinery on charge is valued at Rs. 3,80,840 an increase over last year roughly of Rs. 51,000.

The chief items were, (a) Final payment on account of electric converting plant, (b) Installation of eight oil fired furnaces in Melting Departments, (c) Five ton cupola in Workshop and (d) 18 inch rolls for Bronze Laminating Department.

One Monometer Furnace was returned to the makers during the year as not suitable and consequently Rs. 3,850 was written off from this account, this amount having been recovered from the suppliers.

**36. Bullion Stocks.**—The value of gold and silver bullion at 31st March 1931, including the balance of the Die Department was Rs. 3,44,80,037 against Rs. 2,33,10,240 on 31st March 1930. The increase is mainly due to increase of silver in the Currency Chest.

The value of other metal stock was Rs. 11,56,970 as compared with Rs. 9,61,480 at the end of 1929-30.

The increase is due to purchases against the forecast of coinage demands, which were however subsequently considerably reduced.

**37.** The balances of consumable stores at end of the year 1930-31, and three preceding years are set forth below :—

	Rs.
1927-28 . . . . .	4,84,485
1928-29 . . . . .	4,12,603
1929-30 . . . . .	3,23,250
1930-31 . . . . .	2,25,696

Unserviceable and surplus stores were disposed of during the year. Stores were also revalued at market rate during the year. A sum of roughly Rs. 37,000 was written off as loss on account of sale and revaluation. This explains the reduction in the balance.

A sum of about Rs. 7,000 is still to be written off as loss from the stores on account of stores sold by auction and had this been done during the year under review the balance would have been reduced by this further amount.

**38.** The strike referred to in paragraph 77 of last year's Review ended on 14th May 1930.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

39. As compared with the year 1929-30 the decrease in net profits during 1930-31 amounts to Rs. 28,90,684. Of this the decrease on Coinage Account (*vide* comparative table below) works out to Rs. 28,07,247. The increase in loss on withdrawal of uncurrent coins during 1930-31 (as compared with 1929-30) also amounts to Rs. 1,52,094. The output during the year 1930-31 was greater in the case of unprofitable coinage and considerably less in the profitable work. The heavy reduction in output of all denominations was mainly responsible both for the increase in the cost of production and the reduction in net profits during the year 1930-31 :—

Coinage.	Face value per 1,000 pieces.	No. of pieces manufactured.		Cost of production per 1,000 pieces.		Profit or loss per 1,000 pieces.			
		1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	Profit.	Loss.
Half Rupee	500	..	20,36,000	..	510.25	..	..	Rs.	Rs.
1 Rupee	250	7,20,000	32,22,128	258.53	257.75	..	6,144	..	20,869
Bhutan 1/2 Rs.	213	20,000	30,000	281.63	217.33	..	1,372	..	24,990
Two Anna.	125	1,62,08,000	41,44,000	15.31	18.71	..	..	..	130
One Anna.	62.5	4,22,00,000	2,28,16,000	11.41	14.76	17,77,828	..	4,40,472	..
Single pice	15.62	6,40,00,000	3,34,84,800	10.78	15.02	21,55,910	..	10,80,171	..
Half pice	7.81	76,54,400	71,80,800	7.59	10.27	3,10,179	..	20,170	..
Pie pieces.	5.21	1,51,29,600	1,34,97,600	5.5	9.20	1,735	..	..	17,680
Aman Cash	3.82	..	8,00,000	..	11.62	..	4,401	..	53,890
Bhutan Copper	15.3	..	10,000	..	16.00	..	..	..	5,759
									7
Profit on Coinage.		..	..	..	..	42,45,652	11,917	15,49,813	1,23,325
						Rs. 42,33,735		Rs. 14,26,488	

## HIS MAJESTY'S

## 40. Balance Sheet as at

Liabilities.	1929-30.	1930-31.
	Ra.	Ra.
Sundry Creditors . . . . .	1,14,096	2,43,819
Northbrook Medal Fund . . . . .	220	250
Currency Chest . . . . .	2,16,85,534	2,90,25,333
Silver advanced for Udaipur coinage . . . . .	..	37,85,503
Reserve for Leave allowances . . . . .	..	2,522
Depreciation Reserve . . . . .	83,935	96,365
Reserve for Assay Charges . . . . .	5,000	10,350
Profit and Loss A/c . . . . .	35,85,182	6,94,498
Government Capital Account . . . . .	16,02,028	48,68,580

Total . . . . .	2,70,75,995	3,87,27,220
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(Sd.) N. N. MUKHARJI,

Accountant,

His Majesty's Mint, Calcutta.

## MINT, CALCUTTA.

31st March 1931.

Assets.							1929-30.	1930-31.
							Rs.	Rs.
Plant and Machinery	.	.	.	.	.	.	3,29,875	3,80,840
Furniture and Fixtures	.	.	.	.	.	.	19,312	16,176
Bullion Stocks—								
Mint—								
Gold	.	.	.	.	.	.	18,024	18,024
Silver	.	.	.	.	.	.	15,94,811	54,18,564
Currency—								
Gold	.	.	.	.	.	.	67,13,820	67,13,820
Silver	.	.	.	.	.	.	1,49,71,714	2,23,11,513
Die Department—								
Gold	.	.	.	.	.	.	7,173	10,265
Silver	.	.	.	.	.	.	4,698	7,851
Other Metal Stocks—								
Bronze	.	.	.	.	.	.	3,88,294	6,56,919
Nickel	.	.	.	.	.	.	5,73,186	5,00,051
Finished Coin Stock—								
Bronze	.	.	.	.	.	.	86,500	2,05,200
Nickel	.	.	.	.	.	.	9,36,000	14,54,500
Consumable stores	.	.	.	.	.	.	3,23,250	2,25,696
Treasury Remittances under examination	.	.	.	.	.	.	9,73,683	4,71,825
Sundry Debtors	.	.	.	.	.	.	5,586	75,853
Deposits (Security Deposits)	.	.	.	.	.	.	63,960	60,910
Work in progress	.	.	.	.	.	.	64,885	1,97,813
Imprest and Cash in hand	.	.	.	.	.	.	1,224	1,400
Total							2,70,75,995	3,87,27,220

(Sd.) M. STAGG,

Lt.-Col., R.E.,

(Sd.) C. BHASKARAIYA,  
Asstt. Director of Commercial Audit,  
Calcutta Circle.

Mint Master, His Majesty's Mint,  
Calcutta.

## HIS MAJESTY'S MINT, CALCUTTA.

## 41. Trading and Profit and Loss Account for the year 1930-31.

Dr.	1929-30.		1930-31.		Cr.	
	Rs.		Rs.		1929-30.	1930-31.
To Opening Balance of finished coins.		1,94,900	10,22,500	By Issue of coinage	51,60,824	37,89,529
" Cost of coinage		17,52,626	30,00,240	" Closing balance of finished coin	10,22,500	16,59,700
" Loss on withdrawal of uncurrent coins		4,25,341	5,77,435			
" Bullion office costs		70,212	1,27,766			
" Gross profit c/d.		37,40,245	7,21,288			
Total	61,83,324		54,49,229	Total	61,83,324	54,49,229
To Share of General charges not debited to Production costs.	1,73,968			By Gross Profit b/d	37,40,245	7,21,288
" Net Profit during the year	35,85,182		6,94,498	" Miscellaneous Mint work		—26,790
				" Silver sale account	18,905	..
Total	37,59,150		6,94,498	Total	37,59,150	6,94,498





## HIS MAJESTY'S MINT, BOMBAY.

## SECTION 1.—FINANCIAL REVIEW BY THE MINT MASTER ON THE ACCOUNTS OF THE YEAR 1930-31.

43. *Mint Departments.*—The Bullion and Uncurrent Coin Departments, Gold and Silver Melting Departments, Gold Refinery, Die Department, General Workshop, and Silver Refinery were busy throughout the year.

44. *Assay Office.*—The Assay Office which is independent though housed in the Mint, was working as usual.

45. *Purchase of Gold.*—Towards the end of the year, the Mint made large purchases of gold bullion (worth Rs. 1,90,63,527) under provisions of Section 4 of the Currency Act 1927 and Notifications issued by the Government of India thereunder whereby Government has to purchase all gold offered at a fixed price.

The Weighing, Melting and Assaying of this gold increased the pressure of work in the Bullion, Gold Melting and Gold Refining Departments and the Assay Office, and the Mint Office which had to issue preliminary and final payment certificates to the tenderers.

*Coinage.*

46. *British Dollars.*—The coinage of British Dollars was commenced early in April 1930 and was completed by the end of August 1930. During this period, 22,29,826 British (Hongkong) Dollars of the outturn value of 50,60,351 standard tolas were coined. There were 20,35,018 British Dollars in stock from the last year's coinage and 41,08,870 British Dollars were issued as follows :—

21,08,870 Dollars to a local Merchant against silver tendered for coinage.

20,00,000 Dollars to Banks against contracts made by the Secretary of State for India, London, under Sale of Silver.

Seigniorage was charged at the rate of Rs. 30 per 1,000 pieces and resulted in a profit to the Mint as shown below :—

Item.	Cost per 1,000 pieces.		
	1st Coinage 1929-30.	2nd Coinage 1930-31.	Average of both coinages.
Labour . . . . .	3.41	5.64	3.83
Stores . . . . .	1.77	2.19	1.85
Departmental charges . . . . .	5.44	8.83	6.09
Cost of dies . . . . .	.78	1.10	.83
Cost of assays . . . . .	1.70	2.18	1.78
General charges . . . . .	4.04	7.89	4.77
Copper used as alloy . . . . .	.46	.58	.49
Bullion losses in manufacture . . . . .	6.14	.81	5.13
	23.74	29.22	24.77



The low demand for coinage this year compared with that of the same period last year has resulted in higher cost this year.

47. *Bronze Single Pice*.—This coinage started in May 1930 and ceased in November 1930. The total number of pieces coined was 96,45,568 at a cost of Rs. 13.93 per 1,000 pieces against 12.42 per 1,000 pieces coined in 1928-29.

The detailed cost of manufacture per 1,000 pieces is set out below :—

Item.	Cost per 1,000 pieces.
Labour . . . . .	1.74
Stores . . . . .	.48
Departmental charges . . . . .	2.88
Dies . . . . .	.45
Share of General charges . . . . .	2.88
	<hr/>
	8.43
Cost of metal . . . . .	5.50
	<hr/>
	13.93

The entire amount coined was issued to the Exchange Treasury, Bombay, at the nominal value of coins.

The credit taken into the Mint Accounts for the issues was at the nominal value of the coins, i.e., Rs. 15.624 per 1,000 pieces. The profit on this coinage was, therefore, 1.695 per 1,000 pieces.

The figures of cost of coining Bronze Single Pice in the past are shown below :—

In the half years ended.	Cost per 1,000 pieces.
30th September 1927 . . . . .	14.95
31st March 1928 . . . . .	14.60
30th September 1928 . . . . .	12.42

48. *Percentage of good coins*.—The percentages of good coin calculated on the amount of ingots broken down for the British Dollar Coinage and the Bronze Single Pice Coinage were as follows :—

Coinage.	Amount broken down.	Percentage of good coin.
	Tolas.	
British Dollar . . . . .	1,00,45,898	54.06
Bronze Single Pice . . . . .	68,99,577	58.27

The percentage for British Dollar Coinage carried out last year was 58.84.

49. *Losses on withdrawal of uncurrent coin*.—These losses arise out of the difference between the nominal value of the uncurrent coins withdrawn from circulation and their bullion value calculated on their weight at book rate in the case of nickel and bronze coins and at Re. 1 per standard tola in the case of silver coins.

The Details of these losses in 1930-31 were as follows :—

	Rs.
Silver Coins . . . . .	13,26,530
Nickel Coins . . . . .	15,563
Bronze Coins . . . . .	20,510
	<hr/>
	13,62,603

50. *Bullion Department.*—The Uncurrent Coin Department was mainly engaged on the work of examining uncurrent coins. The Bullion Department in addition to cutting uncurrent coins was engaged in weighing standard silver ingots, fine silver bars and pure copper slabs produced by the Silver Refinery, Indian Mines Gold and gold and silver received from public for melting and refining, gold tenders, and binding of alligations for meltings. The number of coins of each metal examined in the Uncurrent Coin Department during 1930-31 and 1929-30 is shown below :—

	No. of coins examined.	
	1930-31.	1929-30.
Silver . . . . .	10,16,83,973	6,42,77,673
Nickel . . . . .	22,64,846	2,16,701
Bronze . . . . .	19,27,200	19,72,901
	<hr/>	<hr/>
	10,58,76,019	6,64,67,275

51. *General Charges.*—The net general charges for the year amount to Rs. 4,66,248 against Rs. 5,46,656 for the last year.

The net decrease amounting to Rs. 80,408 is due to reduced departmental costs and miscellaneous expenses, cost of repairs, and also to the increase in miscellaneous receipts and sale of stores, although there was an increase in rents, rates and taxes and police charges.

52. *Assay Office.*—The receipts on account of assays done for the public were Rs. 31,648 against Rs. 9,096 in 1929-30. The net expenditure of the Assay Office after deducting these receipts amounted to Rs. 80,103 which was distributed between the Bombay and Calcutta Mints in proportion to the assays carried out for each. The Calcutta Mint's share amounted to Rs. 18,014 and the Bombay Mint's to Rs. 62,089.

The increase in the receipts on account of assay fees is mainly due to increased number of gold musters assayed for the Merchants.

53. *Silver Refinery.*—The Silver Refinery was steadily employed on refining Government silver. No silver was refined for the public during the year.

54. *Medal and Die Department.*—The excess of expenditure over receipts in this account amounted to Rs. 38,427 against Rs. 28,644, in 1929-30. The increase in the net expenditure is due to a fall in receipts under Medals and Dies.

**55. Gold Melting, Merchants Melting and Refining Departments.**—(1) Gold received from the Indian Mines, Merchants and Banks is treated in this Department and bars of accurate weight are cast for Banks and Merchants.

(2) The account for this department shows a profit amounting to Rs. 49,982 against Rs. 62,140 in 1929-30.

(3) The fall in receipts is due to the less receipts of gold for melting and refining from the Indian Mines.

(4) During the year gold weighing 30,18,824 tolas was received from Banks and Merchants for melting and assay, the corresponding figure for 1929-30 being 5,73,130 tolas. In 1930-31, 10,89,897 tolas of raw gold received from the Indian Mines and Merchants were treated in the Gold Refinery as against 13,25,228 tolas in 1929-30. Gold weighing 1,05,891 tolas was received for melting and casting into bars of uniform weight against 70,366 tolas received in 1929-30. Gold weighing 9,94,722 tolas was purchased under Currency Act of 1927 towards the end of this year.

**56. Silver Melting Department.**—This department was employed in the preparation of bars for Dollar Coinage and melting for standard and fine silver ingots.

Silver weighing 10,44,925 tolas was received from Merchants, for melting and assay against 1,052 tolas in 1929-30.

**57. Drosses.**—The cost of treating gold and silver drosses and the value of recoveries therefrom are set out below :—

Item.	Cost.	Value of recoveries in 1930-31.		
		Gold.	Silver.	Total.
Dross recoveries of gold . .	7,089	60,916	13,369	74,285
Dross recoveries of silver . .	21,738	..	53,883	53,883
	28,827	60,916	67,252	1,28,168

**58. Receipts from sale of exhausted drosses.**—During the year about 254 tons of gold and silver drosses were sold to Messrs. Johnson Matthey & Co., and Derby & Co., Ltd., London, and a sum of Rs. 21,100 was recovered as value of gold and silver contents. The net profit after deducting all expenses was Rs. 16,307.

**59. General Workshop.**—This department is maintained primarily for the upkeep in serviceable repair of the Mint plant and effects and is in general fairly fully occupied. Outside work is accepted subject to the exigencies of the Mint work proper and with the approval of the Master of the Mint.

**60. Profit and Loss Account.**—The net loss transferred to the Balance Sheet amounts to Rs. 15,52,315 after deducting profit on Dollar and Bronze Single Piece Coinages, on Gold Melting and Gold Refining Account and other miscellaneous receipts, etc. The loss transferred to Balance Sheet last year was Rs. 12,67,121. The loss is mainly due to the loss on withdrawals of uncurrent coin which amounted to Rs. 10,32,929 against Rs. 7,95,386 last year and to the cost of the Silver Refinery. As these are recurring items, this account will always tend to show a loss.

*Balance Sheet.*

61. *Currency Chest Balance.*—This balance consists of gold of the value of Rs. 7,72,42,534-13-6 and silver of the value of Rs. 4,70,74,143-0-9 held in the Mint on account of the Currency Department.

62. *Additions to assets.*—The following additions to the fixed assets were made during the year 1930-31 :—

Item.	Mint.	Refinery.			Assay Office.			Total.		
	Rs.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Buildings . . . . .	..	..	..	..	..	..	..	..	..	..
Plant and Machinery . . .	1,340	5,252	6	0	1,697	9	6	8,289	15	6
Furniture and Fixtures . .	810	8,502	2	7	590	0	0	9,902	2	7
Total . . . . .	2,150	13,754	8	7	2,287	9	6	18,192	2	1

63. *Reduction of Assets.*—Owing to the Government's decision to consider the Mint Buildings as P. W. D. property and to charge rent to the Mint annually, the Mint Buildings of the value of Rs. 4,29,089 including additions during the year have been eliminated from the Balance Sheet. The value of the Currency Vaults only appears in the Balance Sheet.

*Plant and Machinery.*

64. *Mint.*—Magneto, Crucible Gas Furnace, Air Compressor, rivetting and chipping hammers were purchased at a cost of Rs. 1,340.

65. *Silver Refinery.*—The sum of Rs. 5,252 represents the cost of 6 stone-ware copper cells, fan, iron clad switch, 3 acid mixing pans, 3 trucks, 1 Hydraulic Press and spiral tube retarders purchased for the Silver Refinery.

66. *Assay Office.*—The following articles were purchased at a cost of Rs. 1,698 :—

Balance with 6" beam to carry 100 grains.

Abbey scale enlarger quarter plate complete.

Rotary converter complete with transformer.

$\frac{1}{2}$  K. W. Rotary Converter.

Moving Coil Voltmeter.

Moving Coil Ammeter.

*Furniture and Fixtures.*

67. *Mint.*—Fire Extinguishers, Platform Scale, etc., were purchased at a cost of Rs. 810.

68. *Silver Refinery.*—Four acid fume towers, 3 steel cupboards, 1 vat and Fire extinguishers, etc., were added to the stock at a cost of Rs. 8,502.

69. *Assay Office.*—1 G. S. meter and 2 steel cupboards, etc., costing Rs. 590 were purchased during the year.

70. *Consumable Stores.*—The stock of stores Rs. 3,15,725 has decreased by over Rs. 17,000 from the last year's balance Rs. 3,33,546. The stock of stores was verified by the end of June 1931. All departmental stores were verified during the year.

71. *Bullion Stocks*.—The stocks of gold, silver and other bullion were verified by the Examiner, Outside Audit, Bombay, during April 1931.

72. *Sundry Debtors*.—Rs. 1,766-10-0.

The whole of the outstandings represented by the figure has since been recovered.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

73. *Paragraph 46 of the Financial Review. British Dollars*.—The output of Dollar pieces in 1930-31 during a period of five months was 22·30 lakhs only as against 95·35 lakhs in 1929-30 in the same period of five months. The slower progress of work re-acted unfavourably on all the items of cost included in the rates. The slowing up of output was a matter of Mint policy, and was undertaken to keep the cadre maintained in the Mint, and also the machines, engaged for as long a time as possible.

74. *Paragraph 49 of the Financial Review*.—The nominal value of the withdrawn and uncurrent silver coins handled during the year 1929-30 amounted to Rs. 5,78,09,079 and this rose to Rs. 9,62,98,666 in the year 1930-31.

75. The departmental expenditure in the years 1929-30 and 1930-31 are shown below for purposes of comparisons :—

Item.	1929-30. Rs.	1930-31. Rs.
Gross wages .. .. .	2,35,875	2,48,377
Materials consumed .. .. .	1,96,955	1,77,590
Salaries .. .. .	2,34,273	2,43,158
Gas .. .. .	7,520	6,486
Power .. .. .	61,454	58,723
Water .. .. .	4,856	5,605
Depreciation .. .. .	92,236	70,654
Total .. .. .	8,33,169	8,10,593

76. *Paragraph 51 of the Financial Review*.—The details of the general charges for the two years 1929-30 and 1930-31 are also shown below :—

Item.	1929-30. Rs.	1930-31. Rs.
Indirect Departmental cost .. .. .	2,67,711	2,21,798
Wages of Malis, etc. .. .. .	2,909	2,623
Rents, Rates and Taxes .. .. .	1,91,024	1,98,916
Repairs .. .. .	10,588	8,901
Freight .. .. .	5,403	9,457
Postage and telegrams .. .. .	2,545	1,320
Audit .. .. .	9,000	9,000
Police .. .. .	23,000	27,482
Miscellaneous .. .. .	28,466	26,226
Pensionary charges .. .. .	34,120	28,887
Passage contribution .. .. .	825	650
Writes off of Furniture, etc. .. .. .	..	1,206
Compensation to workmen .. .. .	..	767
	5,75,591	5,37,233
Less—Miscellaneous receipts .. .. .	28,935	70,985
Net General charges .. .. .	5,46,656	4,66,248



## HIS MAJESTY'S MINT, BOMBAY.

77. Balance Sheet as at 31st March 1931.

	31st March 1931. Rs.	31st March 1930. Rs.
<i>Liabilities.</i>		
Sundry Creditors ..	78,294	54,070
Deposits ..	62,020	57,814
Currency Chest Balances ..	12,43,16,678	7,70,22,501
Treasury remittances awaiting examination ..	69,10,043	75,56,691
Government Capital Account ..	30,55,106	97,20,355
<i>Assets.</i>		
Buildings ..	..	..
Plant and Machinery ..	..	..
Furniture and Fixtures and Laboratory apparatus ..	..	..
Bullion Stocks—		
Gold ..	..	..
Silver ..	..	..
Other Metal Stocks—		
Voleston ..	5,412	..
Nickel ..	5,00,082	6,43,774
Bronze ..	58,962	36,129
German Silver ..	12	11
Finished coin stock—		
Nickel ..	..	..
Bronze ..	..	..
Consumable stores ..	3,15,725	3,33,546
Uncurrent remittances awaiting examination ..	69,10,043	75,56,691
Security Deposits ..	62,020	57,814
Sundry Debtors ..	1,767	17,850
Profit and Loss Account—		
Net Loss ..	15,52,315	12,28,140
	13,44,22,141	9,44,11,431

(Sd.) A. K. PATINKER, Accountant, His Majesty's Mint, Bombay.	(Sd.) A. J. RANSFORD, (Major R.E.), Master, His Majesty's Mint, Bombay.	(Sd.) H. K. MALICK, Assistant Director of Commercial Audit, Bombay Circle.
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## HIS MAJESTY'S MINT, BOMBAY.

## 78. Trading and Profit and Loss Account for the year ended 31st March 1931.

	1930-31. Rs.	1929-30. Rs.		1930-31. Rs.	1929-30. Rs.
To opening balance on 1st April 1930	46,17,722	..	By Issue of coinage	95,67,404	1,72,72,000
.. Cost of coinage ..	52,59,232	2,18,61,049	.. Closing Balance of finished coins on 31st March 1931 ..	3,53,975	46,17,722
.. Loss on withdrawal of uncurrent coins ..	10,32,929	7,95,386	.. Gross Loss carried down ..	11,09,580	8,66,839
.. Bullion office costs ..	1,21,076	1,00,186			
	1,10,30,959	2,27,57,221		1,10,30,959	2,27,57,221
To Gross Loss b/d	11,09,580	8,66,839	By Profit on gold melting and refining	49,982	62,140
.. Share of Assay Office costs ..	41,185	48,478	.. Receipts from sale of drosses ..	19,743	18,995
.. Cost of recovery of silver drosses ..	21,738	17,739	.. Miscellaneous receipts and adjustments.	21,698	12,259
.. Silver refinery costs ..	3,75,517	3,56,723	.. Net Loss carried to Balance Sheet	15,52,315	12,67,121
.. Losses in melting ..	42,719	40,890			
.. Standard melting costs ..	14,572	1,202			
.. Die Department costs ..	38,427	28,644			
	16,43,738	13,60,515		16,43,738	13,60,515



## HIS MAJESTY'S MINT, BOMBAY.

## 79. Statement of Stores, etc., for the year 1930-31.

Stores.	Opening balance on 1st April 1930.	Value of receipts during the year.	Sold or disposed of	Depreciation or write off.	Closing balance on 31st March 1931.	Results of stock verification and revaluation if any	Agency employed for revaluation or verification.
	Rs.	Rs.	Rs.	Rs.	Rs.		
<i>Consumable Stores—</i>							
Main ..	3,17,370	1,63,129	1,81,259	(a) 904	2,98,336	..	The verification of the main stores was begun in August 1930 and was completed by the end of June 1931 by one of the Mint Engineers. All departmental stores were verified during the year under review. Bullion stocks were verified by the Examiner, Outside Audit in April 1931.
Workshop ..	2,344	20,106	(a) 19,488	(c) 16	2,946	..	
Die Department ..	1,135	5,352	(b) 5,302	..	(d) 1,185	..	
Gold Department ..	1,089	10,980	11,727	..	342	..	
Total	3,21,938	1,99,567	2,17,776	920	3,02,809	..	

(a) Loss in coke and shortages in verification.

(b) Includes Rs. 65-5-0 returned to stores.

(c) Shortages in verification.

(d) The value of dies and collars finished and in progress amounting to Rs. 12,916 is not included.

(Sd.) A. K. PATINKAR,

(Sd.) A. J. RANSFORD (Major R.E.),

Offg. Mint Master,

(Sd.) H. K. MALICK,

Assistant Director of Commercial Audit,  
Bombay Circle.

Accountant, His Majesty's Mint, Bombay.

His Majesty's Mint, Bombay.

## CURRENCY NOTE PRESS, NASIK ROAD.

SECTION 1.—FINANCIAL REVIEW BY COLONEL SIR GEORGE WILLIS, KT., C.I.E.,  
M.V.O., MASTER, FOR THE YEAR 1930-31.

80. Throughout the year I was in charge of the Press.

81. As this is the first annual report of the Currency Note Press as a commercialised concern the following short resumé of the previous history and the scope of the Press may be of interest.

82. The decision that India should print her own currency notes resulted from an investigation into the cost of printing them in England which was undertaken so long ago as 1914. It was then found that there was no technical reason why they should not be printed in India, but the Great War intervened and the subject was not taken up until 1922 when investigations were again made and Government began to look favourably on the suggestion that India should have a currency note press of her own after the termination of the Bank of England contract in 1929. In 1926 however the Bank of England intimated that an earlier termination of their contract than the due date would be convenient to them. Government decided to meet the Bank in the matter and the buildings for the Currency Note Press were started in 1926 and the equipped press was officially opened in April 1928. The first products of the press were issued in September 1928.

83. The press was designed for an output of one and a half million notes a day. The annual sales have been as follows :—

	Rs.
1928-29 .. .. .	7,32,50,000 for the half year ending 31st March 1929.
1929-30 .. .. .	22,40,50,000
1930-31 .. .. .	23,52,50,000

84. The press is divided into three operative sections, three examination sections and a store :

- (a) Offset Lithography section in which the main design of the notes, both fronts and backs, are printed.
- (b) Letterpress section in which the numbers are printed on the notes.
- (c) Guillotine section in which the full sheets are cut into notes of the correct sizes.
- (d) A store for the accommodation of large quantities of paper which the press uses; various kinds of inks, packing materials, etc.

85. The engraving work was formerly done, in part, in the press the remainder being carried out in the engraving department of Security Printing. It has however been found more efficient and economical to do the whole of the work in Security Printing and charge the Currency Note Press a fair share of the cost of the department.

86. The personnel is composed of :

*Administrative (1).*—The Master, who is also in general charge of Security Printing and also *ex-officio* Controller of Stamps.

*Technical* (2).—Offset and letterpress printers, etc.

*Control staff* (3), which is responsible for the receipt by the printers of the necessary quantities of paper and the deliveries and examination of the finished product and the destruction of waste, for the prevention of pilfering and the correctness of the quantities issued to the currency offices.

*Ministerial*.—(4) The clerical and accounting staff with obvious duties,

(5) the watch and ward, and lastly

(6) the daily paid operatives the greater part of whom are locally recruited from the neighbouring villages.

87. The capital of the press stands at the end of the year at some Rs. 35 lakhs. Up to 31st March 1931 the press has charged less by over Rs. 8 lakhs to the Currency Department for its products for delivery free on rail at Nasik Road than would have been the cost under the rates of the old pattern notes of English printing delivered in London. In addition the paper, ink, etc., imported has paid the appropriate rates of duty whereas the finished notes were admitted duty free. Further a total nett profit of nearly Rs. 2½ lakhs has been realised in spite of the destruction of six million Rs. 10 notes costing half a lakh of the brown and green pattern which were printed but not issued as the design was found not sufficiently secure. India has therefore gained largely by the installation of the press.

88. *Issues during 1930-31*.—As regards the year under report the following figures showing the amounts of notes of different denominations produced at the press and issued to currency offices during 1930-31 may be of interest.

	Rs.			
Rupees Five .. .. .	..	..	..	8,20,00,000
Rupees Ten .. .. .	..	..	..	13,70,00,000
Rupees Fifty .. .. .	..	..	..	2,00,000
Rupees Hundred .. .. .	..	..	..	1,60,00,000
Rupees Ten Thousand .. .. .	..	..	..	50,000

89. *Accounts*.—The accounts of the press being commercialised with effect from 1st April 1930 the investigation of the previous accounts afforded a valuable opportunity for careful revision and agreement between the press and the Accountant General, Bombay. Of this opportunity full advantage was taken and with the help of the Commercial Audit Department agreement was arrived at and the grouping of the assets was corrected. The total discrepancies in money value which were discovered were very small and the resultant debits to Capital and revenue balanced.

90. *Lessened demand for currency notes*.—The demand for notes by the Currency Department slackened during the year at an increasing rate, due to the economic depression. This fully accounts for the much smaller rate of profit in the second half year compared with the first. The rate of profit on sales (not on actual output) for the first half year was 20·47%, while for the second half year it dropped to 3·3%. It is hoped that the reductions which have been made in personnel and in other directions will make it possible to maintain the present low price of the notes to the Currency Department in spite of the further reduction in demand which has occurred and which may continue. Every effort and economy possible is being made to attain this.

91. *New designs.*—The new work undertaken during the year consisted of the completion of the first printing of the Rs. 50 note to the new design (part of this having been done in 1929-30) and the printing of the Rs. 10,000 note for the first time in India also to a new and very secure design which should be extremely difficult to imitate. Designs for the new Rs. 1,000 note were also nearly completed during the year.

92. *Surplus paper stock.*—A start was made on the use for other suitable purposes of the star watermark paper originally supplied for the ten rupee note but discarded in favour of the paper with a portrait head watermark when the new design of Rs. 10 note was approved. It is being used for cash certificates and from now on will also be used for Promissory Note and Treasury Bill forms as the stock of special paper for these is exhausted and will not be renewed. There are, however, very large stocks of this star watermark paper and it will be a long time before it can be used up for the purposes enumerated above. If the printing of all cheques for Government of India departments is transferred to this Press the paper can be used for these also, and this would provide a suitable means of terminating earlier the dead weight loss to the Press which was not incurred through any fault of the administration. Fortunately the paper being of high quality and kept for the most part in its metal lining will not deteriorate to any marked extent over a period of years. It may be noted that it is only possible to utilise this paper for documents which exhibit a considerable amount of printing as otherwise blank pieces of it might be used for forgery of the green and brown Rs. 10 note.

93. *Thefts from the Press.*—The only case of abstraction from the Press during the year was the disappearance of two Rs. 10 notes from the final examination. The shortage was made good by the Control staff so that Government suffered no loss, and all those who could have been concerned in the theft were discharged with a week's notice as the police investigation was unable to bring home the theft, if theft it was, to any individual. It was not definitely established that theft has occurred as instances were not lacking of attempts by certain individuals in that section to get others into trouble by deliberate mischief. It is possible that the disappearance of these notes may have been part of the same plan and that they were destroyed deliberately in the Press.

94. Five more examples of the unissued brown and green note, of which a number were abstracted in 1928 as already fully reported, came to hand during the year and the amount of Rs. 50 was refunded to Government and charged in the Profit and Loss account. The total face value of these notes to the end of the year amounted to Rs. 1,560, all of which has been charged to the Press.

95. *New Machinery.*—The two new offset rotary printing machines, to deal with the high value notes to the new design, the purchase of which was approved in 1929-30 were received, erected and set to work during the year and were found to be satisfactory. In view of the present complete equipment of the Press there should be no demand for any fresh capital expenditure except of a very trifling nature for several years, in fact till the Press is required to produce Re. 1 notes.

96. *New buildings.*—The additional quarters for the superior control staff were completed during the year and occupied from 1st June 1930. Here again it is unlikely that any capital expenditure on either press or residential buildings will be necessary for many years, unless, when things are more prosperous, Government should approve additional building in connection with social services.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

97. *Paragraph 88 of the Financial Review.*—The quantities of G. C. Notes of various denominations issued during the year, as given in the financial review, realised Rs. 17,37,462. The issues during the year were charged for at the following rates :—

	Rs.
5 Rupees notes at . . . . .	6·875 per 1,000
10 Rupees notes at . . . . .	7·500 per 1,000
50 Rupees notes at . . . . .	9·750 per 1,000
100 Rupees notes at . . . . .	8·937 per 1,000
10,000 Rupees notes at . . . . .	25·250 per 1,000

The miscellaneous sales during 1930-31 amounting to Rs. 13,627 were on account of Postal Cash Certificates and New Delhi Inauguration Stamps printed for the Security Printing.

98. The output of G. C. notes during the year 1930-31 and their closing stocks on 31st March 1931 (in quantities) were as follows :—

	Output 1930-31.	Balance on 31-3-31.
5 Rupees . . . . .	8,70,00,000	1,10,00,000
10 Rupees . . . . .	1,50,00,00,000	3,30,00,000
50 Rupees . . . . .	10,00,000	33,00,000
100 Rupees . . . . .	1,86,00,000	40,00,000
10,000 Rupees . . . . .	60,000	10,000

The closing stocks were valued at the following rates :—

	Rs.
5 Rupee note per 1,000 . . . . .	6·341
10 Rupee note per 1,000 . . . . .	6·901
50 Rupee note per 1,000 . . . . .	9·031
100 Rupee note per 1,000 . . . . .	8·803
10,000 Rupee note per 1,000 . . . . .	17·730

99. *Stores and stocks* were valued on 31st March 1931 as follows :—

	Rs.
Raw Materials . . . . .	6,69,496
Work in progress . . . . .	88,557
Finished stocks . . . . .	3,62,700

Total . . . . . 11,20,753



The value of Raw materials given above includes surplus water marked paper for the old design of ten rupee notes amounting to 3,114 Reams valued at Rs. 1,81,344.

Attention in this connection is invited to paragraph 92 of the Financial Review.

100. The Capital expenditure incurred during the year 1930-31 was as follows :—

*Buildings.*

	Rs.
Construction of quarters for additional Supervisors . .	82,305

*Plant and Machinery.*

Purchase and Installation of two offset lithographic machines	82,551
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Total . . .	<u>1,64,856</u>
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101. As the Currency Note Press was brought under a commercial accounting system with effect from 1st April 1930 no comparative figures for the previous year are available for inclusion in the accounts and reviews.

39510



## CURRENCY NOTE PRESS, NASIK ROAD.

102. Balance sheet as at 31st March 1931.

<i>Liabilities.</i>		<i>Assets.</i>	
	Rs.		Rs.
Sundry Creditors . . . . .	2,67,962	Land . . . . .	12,038
Accountant General's Suspense Account . . . . .	72,651	Buildings . . . . .	19,91,974
Security Deposits . . . . .	47,024	Railway Siding . . . . .	8,000
Depreciation Reserve . . . . .	2,13,912	Plant and Machinery . . . . .	5,93,747
Leave and Pension Reserve . . . . .	50,852	Minor Equipment . . . . .	53,322
Suspense Account . . . . .	1,42,895	Furniture . . . . .	32,586
Capital Account . . . . .	35,66,868	Preliminary Expenses, etc. . . . .	64,154
Profit and Loss Account . . . . .	2,21,790	Stores and Stocks . . . . .	11,20,754
		Sundry Debtors . . . . .	2,13,647
		Security Deposit investment . . . . .	47,024
		Cash at Bank . . . . .	4,46,201
		Cash in hand . . . . .	507
Total . . . . .	45,83,954	Total . . . . .	45,83,954

(Sd.) H. E. COOPER,

Accountant, Currency Note Press, Nasik Road.

(Sd.) GEORGE WILLIS,

Master, Currency Note Press, Nasik Road.

(Sd.) H. K. MALICK,

Assistant Director of Commercial Audit, Bombay Circle.



## CURRENCY NOTE PRESS, NASIK ROAD.

## 103. Trading and Profit and Loss Account for the year ended 31st March 1931.

	Rs.		Rs.
To Opening balance . . .	2,10,976	By Sales of Currency notes . .	17,37,462
To Cost of production . . .	13,64,989	By Miscellaneous sales . . .	13,627
To Cost of packing and despatch . .	9,155	By Closing Balance . . .	3,62,700
To Gross Profit carried down . .	5,28,669		
	<u>21,13,789</u>		<u>21,13,789</u>
To Salaries and allowances . . .	81,412	By Gross Profit brought down . .	5,28,669
To Depreciation and repairs . . .	17,338	By Miscellaneous receipts, etc. .	7,772
To General expenses, writes off and Audit fees . . . . .	15,745		
To Interest on Capital . . . . .	2,00,156		
To Net Profit carried to Balance Sheet . . . . .	2,21,790		
	<u>5,36,441</u>		<u>5,36,441</u>
Total . . . . .		Total . . . . .	

## CURRENCY NOTE PRESS, NASIK ROAD.

## 104. Statement of stores, etc., for the year 1930-31.

Stores.	Opening balance on 1st April 1930.	Values received.	Sold or dis- posed of.	Depreciation or write off.	Closing balance.	Results of stock verification.	Agency employed for revaluation or verifi- cation.
	Rs.	Rs.	Rs.	Rs.	Rs.		
Paper . . . . .	6,70,994	10,17,834	10,42,032	..	6,46,767	Minor differences adjusted,	Periodical stock taking by a deputy appointed by the Master.
Ink . . . . .	10,195	34,334	37,755	211	6,563	Do,	
Miscellaneous Stores . . . . .	19,978	24,382	28,182	11	16,166	Do,	
Total . . . . .	7,01,167	10,76,550	11,07,999	222	6,69,496		

(Sd.) H. E. COOPER,

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Nasik Road,

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Assistant Director of Commercial Audit,  
Bombay Circle.

## CHAPTER III.

Government of India—Finance Department, Central Board of Revenue Concerns.

## NORTHERN INDIA SALT REVENUE DEPARTMENT.

## SECTION I.—FINANCIAL REVIEW BY THE COMMISSIONER ON THE COMMERCIAL ACCOUNTS FOR THE YEAR 1930-31.

105. As in the previous year the Commercial Accounts for the year 1930-31 have been prepared from the audited figures for March 1931 Final 1st batch as they stood on the 15th June 1931 with all adjustments shown in the Audit Officer's March 1930 Final and supplementary statements. Any adjustments which are made subsequent to the March 1931—Final 1st batch will be accounted for in the accounts for 1931-32.

106. No change in the method of allocating indirect charges relating to Weighment and Commissioner's Headquarters Office charges between price, duty and dispatch has been made except as under :—

- (a) *Interest and depreciation charges on Weighment assets.*—The Government of India in their Finance Department letter C. No. 117-Salt/29, dated the 15th June 1931 have decided that Weighment assets should be treated as Capital and interest and depreciation thereon should be allocated between dispatch and price in the proportion of 15 and 85, respectively, no portion being debited to Preventive (duty). In compliance with these orders no portion of the interest and depreciation charges has been debited to duty in the accounts for the year 1930-31. The portion of interest and depreciation charges namely Rs. 9,584 relating to weighment assets which was debited to Preventive in the accounts for 1929-30 has been readjusted in the accounts of the Manufacturing branch for the year under review.
- (b) The Finance Department (Central Revenues) in their letter R. Dis. No. 394-Salt/30, dated the 1st May 1931 decided that interest on balances in the depreciation fund should be taken in reduction of the cost of production of salt. This has been done in the accounts for the year under review. The amount thus taken into reduction amounted to Rs. 96,909.
- (c) Interest on Capital Outlay has been calculated in accordance with the instruction contained in the Finance Department letter C. No. 26-Salt/30, dated the 3rd May 1930, i.e., on the net capital at the beginning of the year after taking into account all the known assets and liabilities on whatever accounts, including value of stock of salt. The transactions for the year under review have, for the first time, been ignored in calculating interest charges. This revised procedure has been followed in respect of the Commercial Accounts only and does not effect the Finance and Revenue accounts. This is in accordance with the decision contained in the Government of India, Finance Department (Central Revenues) letter R. Dis. No. 401-Salt/30, dated the 23rd July 1931. The interest charges

arrived at by the new method amounted to Rs. 4,83,913 against Rs. 4,19,645 by the old formula.

107. The expenditure chargeable to the Manufacturing branch of the Department for the year under review was Rs. 51,436 less than that for 1929-30. The expenditure under direct Manufacturing charges and interest increased this year from Rs. 14,77,360 and Rs. 4,16,270 to Rs. 15,28,963 and Rs. 4,91,304, respectively. The increase under manufacturing charges is mainly due to the increased production of salt at Sambhar and that under interest to the new method of calculation explained in paragraph 106 above.

There is a decrease of Rs. 1,40,184 under Royalty and Compensation, Rs. 17,643 under pensionary charges and Rs. 26,950 under leave salary and overseas pay paid in England. The decrease under Royalty and Compensation is due to the fact that clearances at Sambhar during 1929-30 (the governing factor in the calculation of royalty for 1930-31) were lower than in 1928-29 while the decrease under leave salary and sterling overseas pay reflects the inflation of the 1929-30 figure by the fact that Mr. Fergusson's (late Commissioner) leave salary and overseas pay for both 1928-29 and 1929-30 were debited in the accounts for 1929-30.

108. The working result of the Manufacturing branch of the department for the year 1930-31 disclosed a net profit of Rs. 5,27,566-14-7 as against a profit of Rs. 55,750 during 1929-30 (*vide* consolidated Trading and Profit and Loss accounts). The result at the several sources during the two years are compared below :—

Sources.	1930-31.			1929-30.		
	Profit.		Loss.	Profit.		Loss.
	Rs.	a.	p.	Rs.	a.	p.
Sambhar . . .	4,34,512	14	9	..	..	1,04,343 0 10
Didwana . . .	17,000	0	1	..	18,985 15 3	..
Pachbadra . . .	38,155	11	11	..	62,491 6 0	..
Khewra . . .	..	..	38,092 3 2	27,931 7 4	..	..
Warcha . . .	67,112	12	5	..	36,237 8 4	..
Kalabagh . . .	8,877	10	7	..	14,446 11 7	..
	5,65,659	1	9	38,092 3 2	1,60,093 0 6	1,04,343 0 10
Net profit . . .	5,27,566	14	7	..	55,749 15 8	..

109. If the credits for 1929-30 of Rs. 68,160 and Rs. 1,73,526, respectively, under the heads "Interest on balances of depreciation fund" and "other Miscellaneous receipts" and of Rs. 96,909 and Rs. 1,72,862 for the year 1930-31 are excluded the transactions for 1929-30 will show a loss of Rs. 1,85,936 and those for 1930-31 a net profit of Rs. 2,57,796. The following table compares

the figures of profit or loss at the individual sources for the two years after excluding the items referred to above.

	1929-30.		1930-31.	
	Profit. Rs.	Loss. Rs.	Profit. Rs.	Loss. Rs.
Sambhar	..	2,89,892	2,20,220	..
Didwana	18,834	..	16,816	..
Pachbadra	56,696	..	36,026	..
Khewra	..	17,684	..	83,018
Warcha	33,097	..	60,201	..
Kalabagh	13,013	..	7,551	..
Total	1,21,640	3,07,576	3,40,814	83,018
Net loss or profit	..	1,85,936	2,57,796	..

110. The results of the activities of the years 1929-30 and 1930-31 analysed under manufacturing and other operations are as follows :—

	1930-31.	1929-30.
Salt—Net profit (+) net loss (—)	+4,00,907	—1,92,401
Bags—Net profit	+3,586	7,944
Dispatch—Net profit	+1,21,239	1,33,008
Gypsum—Net profit	+1,836	3,786

The details of these results by sources are furnished in the following table :—

Sources.	SALT. 1930-31.		1929-30.	
	Profit. Rs.	Loss. Rs.	Profit. Rs.	Loss. Rs.
Sambhar	3,85,068	..	..	2,33,315
Didwana	17,000	..	18,834	..
Pachbadra	23,747	..	59,875	..
Khewra	..	86,993	..	73,758
Warcha	53,207	..	22,768	..
Kalabagh	8,878	..	13,195	..
Total	4,87,900	86,993	1,14,672	3,07,073
Net profit or loss	4,00,907	..	..	1,92,401

	BAGS. 1930-31.		1929-30.	
	Profit. Rs.	Loss. Rs.	Profit. Rs.	Loss. Rs.
Sambhar	..	27	10	..
Pachbadra	..	33	..	16
Khewra	3,646	..	7,950	..
Net profit	3,586	..	7,944	..

	DISPATCH. 1930-31.		1929-30.	
	Profit. Rs.	Loss. Rs.	Profit. Rs.	Loss. Rs.
Sambhar	49,472	..	73,966	..
Pachbadra	14,442	..	694	..
Khewra	43,419	..	47,906	..
Warcha	13,906	..	10,442	..
	1,21,239	..	1,33,008	..

111. Sanctioned selling rates as compared with the corresponding average and actual costs of production of salt per maund at each source during the years 1930-31 and 1929-30 are shown in the table given below:—

Sources.	Sanctioned selling price per maund.		Average cost of salt per maund including opening balance.		Actual cost of production.		Difference between selling price and average cost.— Selling price more+ less—		Difference between selling price and actual cost of production more+ less—	
	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.
Bambhar .	0 5 0	(b) 0 4 3 0 5 0	3 6 65	0 5 6 86	0 3 2 37	0 5 6 87	+0 1 5 35	—0 1 3 86+0 1 9 63	—0 1 3 87	—0 0 6 87
Didwana .	0 3 3	(b) 0 2 6 0 3 3	4 13	0 2 4 74	0 2 9 09	0 2 2 40	+0 0 10 87	0 0 1 26+0 0 5 91	0 0 3 60	0 1 0 60
Paohbadra .	0 4 0	(b) 0 3 3 0 4 0	8 32	0 3 6 88	0 4 7 82	0 3 1 60	+0 0 3 68	—0 0 3 88—0 0 7 82	0 0 1 40	0 0 10 40
Khowra .	0 4 6	(b) 0 3 6 0 4 6	11 73	0 4 8 89	0 5 0 02	0 4 8 26	—0 0 5 73	—0 1 2 89—0 0 6 02	—0 1 2 26	—0 0 2 26
Warcha .	0 4 6	(b) 0 3 6 0 4 6	2 08	0 3 5 51	0 3 2 08	0 3 5 51	+0 1 3 92	0 0 0 49+0 1 3 92	0 0 0 49	0 1 0 49
Kalabagh .	0 4 6	(b) 0 3 6 0 4 6	1 82	0 3 7 39	0 4 1 82	0 3 7 34	+0 0 4 18	—0 0 1 39+0 0 4 18	—0 0 1 34	0 0 10 66

(b) Selling price raised from 15th July 1929.



It will be observed that except at Khewra and Pachbadra the selling price was lower than the cost of production.

At Khewra both the actual cost and the average cost of production in 1930-31 were more than in 1929-30 and were also higher than the selling price. This is chiefly due to the smaller output in 1930-31 than in 1929-30. In the case of Pachbadra also the actual and the average cost of production were more than in 1929-30 owing to the reduced output although the average cost of production at this source was less than the selling price.

112. The figures of output of salt together with prime cost, overhead cost and total cost of production per maund at the various salt sources for the year 1930-31 and 1929-30 are shown below :—

Sources.	Output in maunds.		Prime cost per maund.		Overhead cost per maund.		Cost of production per maund.	
	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.
Sambhar	73,94,560	49,05,593	0 1 1.43	0 1 6.68	0 2 0.94	0 4 0.19	0 3 2.37	0 5 6.87
Didwana	4,49,393	4,91,820	0 1 9.34	0 1 5.13	0 0 11.75	0 0 9.27	0 2 9.09	0 2 2.40
Pachbadra	9,79,343	14,96,192	0 2 10.27	0 2 1.82	0 1 9.55	0 0 11.73	0 4 7.82	0 3 1.60
Khewra	23,23,793	29,90,078	0 3 5.76	0 3 2.66	0 1 6.26	0 1 5.60	0 5 0.02	0 4 8.26
Warcha	6,11,027	5,27,530	0 2 1.93	0 2 3.21	0 1 0.15	0 1 2.30	0 3 2.08	0 3 5.51
Kalabagh	3,99,944	4,05,687	0 3 7.36	0 3 0.91	0 0 6.46	0 0 6.43	0 4 1.82	0 3 7.34

113. The manufacture of salt during 1930-31 apart altogether from bagging and dispatch operations resulted in a net profit of Rs. 4,00,907 against a loss of Rs. 1,92,401 in 1929-30. This profit of Rs. 4,00,907 was made up of a profit of Rs. 4,25,815 in the Rajputana Salt Sources Division and a net loss of Rs. 24,908 in the Salt Range Division. During 1929-30 the losses in these two divisions, Rajputana Salt Sources and Salt Range, amounted to Rs. 1,54,606 and Rs. 37,795, respectively, as shown in paragraph 110 in the table under salt.

114. The value of the stock of salt on the 31st March 1931 amounted to Rs. 14,24,598. Except in the case of Khewra, the value of the stock of salt for all sources has been calculated at the average cost of production as the latter was lower than the selling price. There was no stock of salt at Warcha and Kalabagh at the close of the year.

115. Subjoined is a statement showing the cost prices and the issue rates of bags and the profit or loss for the years 1930-31 and 1929-30.

	Selling price per bag.		Average cost per bag.		Profit or loss.	
	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.
Sambhar . .	Varying between Rs. 37-15 to Rs. 39 per 100 bags.	Varying between Rs. 36-8 & Rs. 44-11 per 100 bags.	0 6 10-80	0 6 10-58	—27	10
Pachbadra . .	0 8 6 0 8 9	0 8 6	0 8 11-10	0 8 11-10	—33	—16
Khewra . .	0 7 6 0 5 9	0 8 6 0 7 6	0 6 11-55	0 7 2-31	3,646	7,950

There were no transactions in bags at Didwana, Warcha and Kalabagh as there is no dispatch system at Didwana and Kalabagh and all salt issued from Warcha is unbagged. The profit of Rs. 3,646 at Khewra was due to bags having been sold at Re. 0-7-6 upto 1st December and at Re. 0-5-9 from this date onwards against the average cost price of Re. 0-6-11-53.

The price of bags at Khewra was reduced from 0-7-6 to 0-5-9 while that at Pachbadra was raised from 0-8-6 to 0-8-9 from November 1930.

116. The dispatch charges account showed a profit of Rs. 1,21,239 for 1930-31 as compared with Rs. 1,33,008 for the previous year. A comparative table showing the sanctioned rate of recovery and the actual rate worked out on the basis of the figures incorporated in the accounts for the year 1930-31 and 1929-30 is furnished below :—

	1930-31.		1929-30.	
	Sanctioned rate of recovery per maund.	Actual cost per maund of salt.	Sanctioned rate of recovery per maund.	Actual cost per maund of salt.
Sambhar . . .	0 0 6	0 0 3-43	0 0 6	0 0 3-34
Pachbadra . . .	0 0 9	0 0 6-61	0 0 9	0 0 8-89
Khewra . . .	0 0 6	0 0 3-01	0 0 6	0 0 2-96
Warcha . . .	0 0 6	0 0 1-55	0 0 6	0 0 1-13

The amount of indirect charges charged to this account are as follows:—

	Rs.
Sambhar . . . . .	32,116
Pachbadra . . . . .	9,180
Khewra . . . . .	11,759
Warcha . . . . .	1,899
	<hr/> 54,954

117. The total quantity of gypsum excavated and sold during 1930-31 amounted to 5,097 tons and 4 Cwt. The total charges both direct or indirect incurred on excavation amounted to Rs. 9,315. The sale of gypsum during 1930-31 realized Rs. 10,418 including Rs. 416 relating to the previous year. The year closed with Rs. 1,148 due from purchasers of gypsum and the profit on this account was Rs. 1,835 against the profit of Rs. 3,786 for 1929-30 or Rs. 1,951 less than the last year's figure. This is due to the expenditure of Rs. 900 on repairs to tubs, excess railway freight paid to Messrs. Bell Tayler and Co., under Government of India's letter D. Dis. 75-Salt/31, dated the 22nd February 1931 and reduced sale owing partly to competition by private traders and partly to the general trade depression.

118. As reported last year the stock balance of general stores at Warcha at the end of the year 1929-30 was a credit balance of Rs. 8,928 which was unusual and was due to transfer of stores from Khewra to Warcha the value of which was not taken on to the Books. The Audit Officer, Indian Stores Department, has since regularized this matter and the balance at the end of the year under report is a debit balance of Rs. 13,202.

119. A net profit of Rs. 71,662 is shown on stores, workshops and electric power house establishment.

Details are as under:—

	Rs.
Khewra . . . . . Profit	60,403
Sambhar . . . . . Profit	11,789
Warcha . . . . . Loss	530
	<hr/> 71,662

The profit of Rs. 11,789 at Sambhar against a loss of Rs. 11,210 in the previous year is due to the fact that in 1929-30 the Workshop and electric power house were not required to work at full pressure owing to the floods and hence the outturn was very low during that year. The low profit at Sambhar as compared with that at Khewra is due to the causes mentioned in the previous report. It has now been decided that the recoveries on account of electric energy supplied to the B. B. and C. I. Railway will, with effect from the year 1932-33, be adjusted by deduction from the expenditure and then the profit will be considerably more than at present.

At Khewra the total expenditure during 1930-31 under General Workshop amounted to Rs. 56,528 while the value of outturn debitable to other branches and parties and credited to General Workshop account amounted to Rs. 62,479.

There was thus a net profit of Rs. 5,951. The corresponding profit for 1929-30 was Rs. 3,156.

120. The net sum credited during 1930-31 on account of Miscellaneous Receipts amounted to Rs. 1,72,862, the figures for the year 1929-30 and 1928-29 being Rs. 1,73,527 and Rs. 1,98,728, respectively. The most important individual item is a sum of Rs. 1,21,886 received from the B. B. and C. I. Railway as terminal charges for the use of the Departmental sidings at Sambhar, Gudha, etc. For 1929-30 the terminal charges recovered from the Railway amounted to Rs. 90,856.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

121. *Paragraphs 108 to 110 of the Financial Review.*—During the two years receipts on account of Interest on the balance of the Depreciation Fund and miscellaneous were adjusted as below :—

	Miscellaneous Receipts.		Interest on Depreciation Fund.	
	1929-30.	1930-31.	1929-30.	1930-31.
	Rs.	Rs.	Rs.	Rs.
Actual Receipts .. .. .	1,73,468	1,72,850	68,160	96,909
Amount taken towards reduction of cost of Salt .. .. .	1,38,216	1,65,071	..	96,909
Balance not adjusted towards cost of Salt..	35,252	7,779	68,160	..

From the above it would appear that the sum of Rs. 1,03,412 was not adjusted during 1929-30 against the cost of salt. Had this been taken into account in full, as has been done in the accounts of the year 1930-31 (with the exception of a sum of Rs. 7,779), the net loss on salt during 1929-30 would have been Rs. 88,989 instead of Rs. 1,92,402 as shown in the accounts, and the profit or loss on Salt by Sources should have been as below :—

	Profit.	Loss.
	Rs.	Rs.
Sambhar .. .. .	..	1,78,319
Khewra .. .. .	..	31,712
Didwana .. .. .	18,986	..
Pachbadhra .. .. .	61,813	..
Warcha .. .. .	25,796	..
Kalabagh .. .. .	14,447	..

The following table will show the comparison in working results of the years, 1929-30 and 1930-31 taking into account the revised figure\* of loss on Salt for 1929-30 worked out above :—

		1930-31.	1929-30.
		Rs.	Rs.
Turnover—			
Salt .. .. .	..	26,10,742	29,79,887
Bags .. .. .	..	53,060	92,289
Gypsum .. .. .	..	11,150	14,640
Dispatch .. .. .	..	2,74,176	3,24,358
Total Turnover .. .. .	..	29,49,128	34,11,174

## Net Profit or Loss (—)

						1930-31. Rs.	1929-30. Rs.
Salt	..	..	..	..	..	4,00,907	—88,989*
Bags	..	..	..	..	..	3,585	7,945
Gypsum	..	..	..	..	..	1,836	3,786
Dispatch	..	..	..	..	..	1,21,239	1,33,008
Total Net Profit or Loss (—)						5,27,567	55,750

## Percentage of Net Profit or Loss (—) to Turnover—

Salt	..	..	..	..	..	15.35%	—2.98%
Bags	..	..	..	..	..	6.75%	8.61%
Gypsum	..	..	..	..	..	16.46%	25.86%
Dispatch	..	..	..	..	..	44.22%	41.07%
Percentage of total net profit or loss (—) to total turnover of the Branch as a whole						17.89%	1.63%
Percentage of total net profit or loss (—) to Salt Turnover						20.21%	1.87%

As compared with the previous year the net profit of the Branch as a whole during 1930-31 has increased by Rs. 4,71,817. This is chiefly due to heavy profits on Salt being Rs. 4,00,907 during 1930-31 against Rs. 88,989\* loss during 1929-30 (\*revised figure). The working results of the Sambhar Source are as follows :—

	1929-30.	1930-31.	Decrease (—) or Increase (+).
Net Profit or Loss (—) on Salt ..	.. (—) Rs. 1,78,319	Rs. 3,85,068	..

## Turnover—

Mds.	..	..	..	53,63,927	37,27,636	16,41,291 (—)
Amount	..	..	..	Rs. 15,87,051	11,57,675	4,29,376 (—)

NOTE.—Decrease of 16,41,291 mds. @ 5 As. per maund (selling rate) Rs. 5,12,904 (—)

## Production—

Maunds	..	..	..	49,05,593	73,94,560	24,88,967 (+)
Cost of Production—						
Rs.	..	..	..	17,08,604	14,77,702	2,30,902 (—)
Per maund	..	..	..	Rs. 0 5 6.87	0 3 2.37	0 2 4.50 (—)

## Closing Stocks—

Maunds	..	..	..	15,46,714	53,48,670	38,01,956 (+)
Value Rs.	..	..	..	4,83,348	11,88,129	7,04,781 (+)
Valuation rate per maund	..	..	..	0 5 0	0 3 6.65	0 1 5.35 (—)



The IMPROVEMENT at Sambhar was mainly due to the following causes :—

- (1) The abnormally high production of Salt during 1930-31 resulted in an appreciable reduction in the cost of production per maund.
- (2) During 1929-30 salt, maunds 10,22,337, was washed away by the floods—there being no loss of the kind during 1930-31.
- (3) The payment on account of royalties debited to the accounts of the year 1930-31 was Rs. 4,29,794 against Rs. 5,69,978 of the previous year.
- (4) The share of the fixed compensation (Rs. 3,00,000) debited to Sambhar during 1930-31 was Rs. 2,07,864 against Rs. 2,30,527 of the previous year.
- (5) Notwithstanding an increase in output of 24,88,967 maunds in the year 1930-31 the total overhead cost decreased by Rs. 2,70,843 resulting in a reduction in the overhead cost per maund by Rs. 0-1-11.25 as compared with the previous year.



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NORTHERN INDIA SALT REVENUE DEPARTMENT—(contd.).

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## NORTHERN INDIA SALT REVENUE DEPARTMENT.

122. Balance Sheet as at 31st March 1931.

Liabilities.	1929-30.		1930-31.		Assets.		1929-30.		1930-31.	
	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.
<i>Sundry creditors—</i>					<i>Fixed assets—</i>					
Manufacturing	35,861	38,588			Land.			1,05,798	..	1,05,798
General Stores	5,516	14,139			Buildings as on 1st					
Bags	..	298			April 1930			11,97,332	11,94,322	
					Additions during the				35,095	
					year					
Depreciation Reserve		41,377		53,023						
Government account	..	16,42,237		18,85,441	Deduct—sales and trans-			12,77,384	12,29,417	
Profit and loss ac-	..	1,00,34,592		1,00,33,850	fery				42,188	
count										
Net profit for 1930-	..	..		5,27,537	Roads and Bridges as on			11,94,322		11,87,229
1931					1st April 1930					
					Additions during the				57,687	
					year				1,102	
								57,688		58,789
					Plant and Machinery					
					as on 1st April 1930			15,27,042	15,30,252	
					Additions during the				35,253	
					year					
					Deduct—sales and trans-			15,66,438	16,71,505	
					fery					
								30,186	33,799	
					Other works					
					Additions during the			55,12,866	55,74,815	15,37,708
					year				57,344	
					Deduct—sales and trans-			55,77,893	55,32,159	
					fery				3,586	
								55,74,815		56,28,573

Furniture and fittings . . . . .	..	41,317	41,317	..
Additions and alterations . . . . .	..	..	-10,837	30,480
Floating assets—				
General Stores . . . . .	..	2,02,604		2,10,013
Bags . . . . .	..	57,519		14,457
Salt . . . . .	..	6,94,538		14,24,598
Depreciation fund . . . . .	..			
Investment account . . . . .	..	16,42,237		18,85,441
Sundry Debtors—				
Salt account . . . . .	2,04,095		3,74,476	
Dispatch account . . . . .	20,764		41,173	
Gypsum account . . . . .	416		1,148	
Bags . . . . .	17,044			
		2,42,319		4,16,797
Profit and loss account—				
Accumulated loss upto the end of the year 1928-29 . . . . .	4,24,497			
Profit during the year 1929-30 . . . . .	55,750	3,68,747		
Total . . . . .	..	1,17,18,206	..	1,24,99,881

## NORTHERN INDIA SALT REVENUE DEPARTMENT.

123 A.—Comparative consolidated Trading and Profit and Loss account for the year ended 31st March 1931.

*Debits.*

Particulars.	Sambhar.			Didwana.			Pachbadra.			Khewra.			Warela.			Kalabagh.			Total.
	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	
To salt stock at . . . . .	Rs. A.	Rs. B.	Rs. b.	Rs. C.	Rs. o.	Rs. D.	Rs. d.	Rs. E.	Rs. o.	Rs. F.	Rs. f.	Rs. g.	Rs. h.	Rs. i.	Rs. j.	Rs. k.	Rs. l.	Rs. m.	Rs.
Commencement . . . . .	5,95,111	4,83,348	15,995	39,048	40,895	92,155	62,781	80,016	3	1,212	14	7,15,907	6,94,583						
Manufacture . . . . .	4,77,338	5,17,279	43,893	49,897	2,01,243	1,74,794	9,02,110	6,14,133	82,534	73,033	90,331	14,77,369	15,98,983						
Weightment charges . . . . .	13,795	16,349	1,252	1,250	3,843	4,153	7,634	6,724	822	800	1,004	23,435	30,307						
Share of Commissioner's Headquarters Office charges . . . . .	37,931	34,550	2,693	2,943	13,680	11,022	38,440	37,093	5,165	6,120	5,525	1,08,034	98,633						
Medical charges . . . . .	6,219	8,229	78	134	2,107	2,601	7,942	7,016	2,456	140	168	18,942	21,178						
Royalties and Salt Compensation . . . . .	8,00,505	6,37,658	14,314	16,815	55,159	75,331	..	..	..	..	..	8,63,973	7,29,794						
Pensionary charges . . . . .	24,028	15,846	1,252	917	5,391	3,874	18,555	12,031	2,322	1,532	1,197	53,069	35,417						
Leave salaries and overseas pay paid in England . . . . .	27,996	11,772	1,093	609	5,559	2,281	15,619	10,578	2,039	2,080	1,137	54,449	27,493						
Interest on capital outlay . . . . .	2,78,934	3,02,145	1,367	2,063	749	2,855	1,24,315	1,68,414	10,705	202	1,592	4,16,371	4,91,304						
Depreciation charges . . . . .	1,41,917	1,40,917	361	599	2,593	4,215	1,03,788	1,04,716	13,353	1,287	1,267	2,63,307	2,84,178						
Cost of accounts and audit Establishment . . . . .	18,140	16,025	1,290	1,365	6,542	5,167	18,385	17,293	2,471	2,448	2,665	43,276	44,869						
Stationery and Printing . . . . .	1,143	2,379	19	152	99	474	2,018	5,589	33	33	153	3,251	8,893						
Contribution of Bonus to provident fund . . . . .	..	322	..	..	..	..	843	1,854	..	..	..	843	2,176						
Other items . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..						
Re fund (Salt proceeds) . . . . .	15,529	25,105	..	..	892	25,764	2,215	450	5,573	1,272	923	25,431	65,735						
Miscellaneous Revenue receipts) . . . . .	..	..	..	..	..	6	53	2	..	..	..	58	13						

Salt indents at commencement	53,093	..	-543	..	-1,06,507	..	3,21,711	..	-34,904	..	-30,754	..	2,04,098
Salt indents at close													
Bags accounts loss													
Balance being net profit	-1,04,343	4,34,513	18,985	17,000	62,491	38,156	27,931	-33,092	33,233	67,113	14,417	8,877	53,759
	23,34,243	27,01,530	1,02,601	1,33,141	4,01,065	3,36,435	10,37,694	13,47,479	1,56,221	1,70,674	1,03,573	84,004	41,40,502
Total													47,75,264

A. Maunds 23,40,417.25 of Sambhar Salt Valued at selling price Re. 0-4-3 per maund = (a) Maunds 15,45,714 of Sambhar salt valued at selling price Re. 0-5-0 a maund = 5,95,111.  
 B. " 1,02,365.2 of Didwana Salt Valued at selling price Re. 0-2-6 per maund = 15,995. (b) " 2,60,837 of Didwana salt average cost Re. 0-2-4-74 a maund = 30,043.  
 C. " 2,00,886.20 of Pachbadra Salt Valued at selling price Re. 0-3-3 per maund = 40,805. (c) " 4,12,633 of Pachbadra salt average cost Re. 0-3-6-38 a maund = 92,155.  
 D. " 2,87,000 of Khewra Salt Valued at selling price Re. 0-3-6 per maund = 62,781. (d) " 2,834,500 of Khewra salt valued at selling price Re. 0-4-6 a maund = 89,016.  
 E. " 16 of Waracha Salt Valued at average rate Re. 0-3-5-43 per maund = 3. (e) " 31 of Waracha salt valued at average cost Re. 0-3-5-51 a maund = 7.  
 F. " 5,540 of Kalabagh Salt Valued at selling price Re. 0-3-6 per maund = 1,212. (f) " 64 of Kalabagh salt valued at average cost Re. 0-3-7-39 a maund = 14.

## NORTHERN INDIA SALT REVENUE DEPARTMENT.

123-B.—Comparative consolidated Trading and Profit and Loss accounts for the year ended 31st March 1931.—*contd.*  
*Credits.*

Particulars.	Sambhar. 1929-30.	1930-31.	Didwana. 1929-30.	1930-31.	Pachbadra. 1929-30.	1930-31.	Khewra. 1929-30.	1930-31.	Warcha. 1929-30.	1930-31.	Kalabagh. 1929-30.	1930-31.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
By sale proceeds of salt.	14,52,619	10,68,077	59,396	61,267	2,72,354	3,00,274	6,49,724	8,67,247	1,22,914	90,801	90,910	1,18,429	26,45,917
By salt indents (at close)	55,093	1,69,797	—543	—914	—1,06,507	—45,332	3,21,711	2,27,082	—34,904	59,586	—30,755	—35,752	25,04,095
By miscellaneous Revenue Re- ceipts	1,46,125	1,58,564	30	9	4,901	853	210,042	9,692	378	2,937	1,051	802	3,74,477
By Interest on balance of dep- reciation fund	39,424	55,729	122	175	894	1,272	24,675	35,233	2,762	3,975	383	625	1,72,862
By Stores, Workshops and Elico- pate Power House Establish- ment	—11,210	11,789	..	..	694	14,442	65,103	60,403	224	—530	..	..	54,120
By profit on dispatch account	73,966	49,473	..	..	..	..	47,906	43,420	10,442	13,905	..	..	1,33,008
By profit on gypsum	..	..	..	..	..	..	3,786	1,836	..	..	..	..	1,21,239
By profit on Bags	10	—27	..	..	—16	—23	7,950	3,646	..	..	..	..	3,786
By Salt Stock (at close)	4,83,248	11,83,129	39,043	72,604	92,155	64,955	80,016	98,910	7	..	14	..	7,944
By Net loss	..	..	..	..	..	..	..	..	..	..	..	..	3,656
To salt indents at Commence- ment	90,868	..	4,548	..	1,36,590	..	—1,84,122	..	54,338	..	47,075	..	6,94,688
Total	23,34,243	27,01,530	1,02,601	1,33,141	4,01,665	3,36,436	10,37,694	13,47,479	1,56,221	1,70,674	1,08,678	84,004	41,40,502

(\*) Maunds 15,46,714 of Sambhar salt valued at selling price, viz. Re. 0-5-0 a maund = 48,348.

(\*) 2,60,867 of Didwana salt valued at average cost Re. 0-2-4-74 a maund = 39,048.

(\*) 4,12,634 of Pachbadra salt valued at average cost Re. 0-3-6-88 a maund = 92,155.

(\*) 2,84,600 of Khewra salt valued at selling price Re. 0-4-6 a maund = 80,916.

(\*) 31 of Warcha salt valued at average cost Re. 0-3-5-51 a maund = 7.

(\*) 64 of Kalabagh salt valued at average cost Re. 0-3-7-39 a maund = 14.

(\*) 53,48,670-18 of Sambhar salt valued at average cost Re. 0-3-6-66 = 11,88,129.

(\*) 4,95,553-20 of Didwana salt valued at average cost Re. 0-2-4-13 a maund = 72,604.

(\*) 2,81,648 of Pachbadra salt valued at average cost at Re. 0-3-8-28 a maund = 64,955.

(\*) 3,51,680 of Khewra salt valued at selling prices at Re. 0-4-6 a maund = 93,310.

(Sd.) S. C. SEN,

Assistant Audit Officer,

Northern India Circle,

Commercial Audit Branch.

(Sd.) KIRPA RAM,

Head Accountant,

Northern India Salt Revenue Department.

(Sd.) S. C. DAS,

Secretary to Commissioner.



## NORTHERN INDIA SALT REVENUE DEPARTMENT.

## 124. Comparative special Abstract Trading and Profit and Loss account by Products for the year 1930-31.

Dr.

Cr.

Particulars.	Sambhar.		Didwana.		Pachbadra.		Sambhar.		Didwana.		Pachbadra.	
	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
To loss on bags	..	..	..	..	..	..	73,366	49,472	..	..	694	14,442
To loss salt	2,33,315	..	..	..	..	..	10	-27	..	..	-16	-33
To Net profit	-1,04,343	4,34,513	18,036	17,000	62,491	38,156	33,424	..	122	..	894	..
Total	1,29,972	4,34,513	152	17,000	2,616	38,156	15,572	..	30	..	1,044	23,747
Particulars as above.												
Particulars.	Khewra.		Warcha.		Kalabagh.		Khewra.		Warcha.		Kalabagh.	
	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
To loss on bags	..	..	..	..	..	..	47,903	43,419	10,442	13,905	..	..
To Loss on salt	73,768	..	-25,768	..	-13,195	..	3,786	1,336	..	..	3,786	1,833
To Net profit	27,631	-38,062	36,238	67,113	14,447	8,877	7,960	3,646	..	..	7,960	3,686
Total	1,01,689	-38,062	12,470	67,113	1,332	8,877	24,575	..	2,763	..	883	..
	..	..	..	..	..	..	17,472	..	265	..	869	..
	..	..	..	..	..	..	..	-86,963	..	53,208	..	8,877
	..	..	..	..	..	..	10,16,88	-28,062	13,470	67,113	1,252	8,877
	..	..	..	..	..	..	..	..	..	..	2,48,151	5,27,567

## NORTHERN INDIA SALT REVENUE DEPARTMENT.

## 125. Comparative cost sheet of salt for the year 1930-31.

Particulars.	Sambhar. 1929-30. 1930-31. Rs.	Didwana. 1929-30. 1930-31. Rs.	Pachhadra. 1929-30. 1930-31. Rs.	Khehra. 1929-30. 1930-31. Rs.	Warcha. 1929-30. 1930-31. Rs.	Kalabagh. 1929-30. 1930-31. Rs.	Total. 1929-30. 1930-31. Rs.
Opening balance charges for the year	6,99,664	5,38,611	21,321	39,049	85,994	92,155	1,74,794
Manufacturing charges	4,77,338	5,17,279	43,893	49,887	2,01,243	1,74,794	6,02,110
Share of Commissioner's Headquarters.	37,931	34,550	2,698	2,943	13,680	11,092	34,440
Royalties and compensation	8,00,505	6,37,668	14,314	16,815	55,159	75,321	1,24,315
Interest on capital	2,78,934	3,02,145	1,387	2,993	747	2,855	1,06,444
Depreciation charges	1,41,917	1,40,917	361	699	2,596	4,215	1,04,717
Warrant charges	13,796	16,349	1,252	1,250	3,843	4,158	7,694
Expenditure on medical stores and work-shops, pensionary charges, leave salaries, bonus to provident fund deposits, cost of audit and accounting and stationery and printing	88,735	42,784	3,735	3,174	19,608	14,397	1,746
Recoveries	-1,30,553	-1,55,251	..	-11	-3,857	-811	-3,512
Interest on balance of depreciation fund	..	-55,729	..	-175	..	-1,272	..
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Manufactured during the year	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
Deficit - Deficits and	..	..	..	..	..	..	..
writes off	-2,30,370	..	..	..	..	..	..
Excess relating to opening balance	..	1,35,033	..	85,022	..	2,41,000	..
And commencing balance	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
Total	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2,60,867	2,00,886	4,12,634	2,87,000
	69,15,642	90,76,307	5,94,186	7,95,282	16,97,078	16,32,817	32,77,078
	..	..	..	..	..	..	..
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	24,08,287	20,16,313	88,941	1,16,499	3,79,013	3,76,904	9,71,099
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
	49,05,594	73,94,560	4,91,821	4,49,393	14,96,192	9,79,348	29,90,078
	..	..	..	..	..	..	..
	-2,30,370	..	..	..	..	..	..
	..	1,35,033	..	85,022	..	2,41,000	..
	23,40,418	15,46,714	1,02,365	2			

Average cost per maund	0	5	6	86	0	3	6	65	0	2	4	74	0	2	4	13	0	3	6	83	0	3	6	32	0	4	8	39	0	4	11	73	0	3	5	51	0	3	2	08	0	3	7	39	0	4	1	82
Less rate	0	5	0	0	0	5	0	0	0	2	3	0	0	0	3	0	0	0	4	0	0	4	0	0	0	4	6	0	4	6	0	4	6	0	4	6	0	4	6	0	4	6	0	4	6			
Cost of production per maund for the year	0	5	6	87	0	3	2	37	0	2	2	40	6	2	9	09	0	3	0	60	0	4	7	52	0	4	8	26	0	5	0	02	0	3	5	51	0	3	2	08	0	3	7	34	0	4	1	82
Prime cost per maund for the year	0	1	6	68	0	1	1	43	0	1	5	13	0	1	9	34	0	2	1	82	0	2	10	27	0	3	2	66	0	3	5	76	0	2	3	21	0	2	1	93	0	3	0	91	0	3	7	36
Difference overhead charges	0	4	0	19	0	2	0	94	0	0	9	27	0	0	11	75	0	0	11	78	0	1	9	55	0	1	5	60	0	1	6	26	0	1	2	30	0	1	0	15	0	0	6	43	0	0	6	46

## NORTHERN INDIA SALT REVENUE DEPARTMENT.

126. Statement showing the details of the manufacturing charges as per cost sheet of salt for 1929-30 and 1930-31.

Particulars.	Gambher.	Didwana.	Pachhadra.	Khewra.	Wareha.	Kalabagh.
	Expendi- ture during 1929-30. Rs.	Expendi- ture during 1929-30. Rs.	Expendi- ture during 1929-30. Rs.	Expendi- ture during 1929-30. Rs.	Expendi- ture during 1929-30. Rs.	Expendi- ture during 1929-30. Rs.
<b>Manufacture.</b>						
(1) Pay of Officers . . . . .	39,017	38,539	3,333	4,962	3,900	29,119
(2) Pay of Establishment . . . . .	1,11,954	1,10,432	3,437	3,601	20,225	19,332
(3) Allowances . . . . .	4,877	5,970	961	1,470	1,112	3,505
(4) Supplies and Services—						
(a) Manufacturing and Excava- tion charges:—						
1. Manufacture and Excavation	1,84,439	2,34,755	41,143	1,65,433	1,41,499	2,34,341
2. Carriage of Salt . . . . .	39,240	57,456	..	..	..	33,885
3. Cost of Electric Current . . . . .	..	..	..	..	..	1,09,280
4. Maintenance of Air Com- pressor Plant . . . . .	2,23,679	2,92,211	41,143	1,65,433	1,41,499	23,760
Total of 4 (a) . . . . .	..	..	..	..	..	4,51,272
(b) Other Charges—						
1. Maintenance of Permanent Way and Rolling Stock . . . . .	28,503	24,464	..	9	..	24,480
2. Petty Construction and Ord- nary Repairs . . . . .	21,128	12,910	454	357	1,944	12,046
3. Water Supply Charges . . . . .	5,154	6,029	..	..	4,913	2,329
4. Maintenance of Tools and Plant . . . . .	6	134	..	284	..	43
5. Arms and Accoutrements . . . . .	324	—54	..	7	48	17
6. Miscellaneous . . . . .	—909	903	..	2,746	854	7,634
7. Compensation to sufferers . . . . .	..	..	..	..	..	3,400
8. Clothing Charges . . . . .	..	..	..	215	..	353
9. Claims for damages on ac- count of subsidence at Khewra . . . . .	..	..	..	..	..	16,969
10. Protective Works and Repairs accelerated by Flood . . . . .	34,720	8,679	..	..	..	..
11. Value of unserviceable assets and losses written off . . . . .	637	5,701	..	278	..	..
Total of 4 (b) . . . . .	89,577	58,766	357	8,398	7,759	1,856
Total of 4 (a) + 4 (b) . . . . .	3,13,256	3,50,977	41,600	1,73,831	1,49,253	61,503
Total of Supplies and Services	..	..	..	..	..	..
Total Items (1) to (4) . . . . .	4,69,104	5,06,968	43,473	2,00,438	1,73,603	5,93,920
				6,04,180	73,974	81,845
						76,887
						89,546
						16,321
						17,679
						82,660
						69,593
						73,108
						6,609
						34
						6,775
						63,892
						73,974
						81,845
						76,887
						89,546



## NORTHERN INDIA SALT REVENUE DEPARTMENT.

## 127.—Stores Account for 1930-31.

				Salt Stores. Quantity. Mds.	Bags. Quantity. No.	General Stores Amount. Rs.
Open ing Balance	..	..	..	25,04,810	1,27,432	2,02,603
Receipts from all sources (Manufacture, Excavation, Purchases, etc.).				1,31,73,722	18,400	1,46,753
Total	..			1,56,78,532	1,45,832	3,49,356
Issues of all kinds	..	..	..	91,46,220	1,13,282	1,36,529
Wastage, etc., written off by competent au- thority.			(c)	54,760	..	2,814
Total	..			92,00,980	1,13,282	1,39,343
Closing Balance	..	..	..	64,77,552	32,550	2,10,013
Value	..	..	..	Rs. 14,24,598	Rs. 14,457	
(a)	..	..	..	Maunds. 53,48,670	@ 0 3 6-65	Rs. 11,88,129
				4,95,554	@ 0 2 4-13	72,604
				2,81,648	@ 0 3 8-28	64,955
				3,51,680	@ 0 4 6	98,910
Total Maunds	..	..	..	64,77,552	Total	14,24,598
(b)	..	..	..	Bags. 10,970	@ 0 6 10-80	4,731
				2,736	@ 0 8 11-10	1,526
				18,844	@ 0 6 11-55	8,200
Total Bags	..	..	..	32,550	Total	14,457
(c) The value of the quantity written-off	..	..	..			Rs. 17,102
Maunds	..	..	..	54,595	@ 0 5 0	17,061
"	..	..	..	165	@ 0 4 0	41
Total	..	..	..			17,102



The closing stock of bags was verified and found correct. The check on weighment of salt into store and on periodical clearance of bags was duly exercised by the Divisional Officers.

(Sd.) S. C. DAS,

Personal Assistant to Commissioner,  
Northern India Salt Revenue, Delhi.

(Sd.) R. SETH,

for Head Accountant.

Verified with the statements of expenditure and other audited statements furnished by the Audit Officer, Indian Stores Department, and found correct. The opening balance of General Stores for 1930-31 does not agree with the closing balance of the account for the year 1929-30 which was rendered by the Audit Officer, Indian Stores Department, and included all the transactions for that year. The commercial accounts, however, included the transactions for March Final 2nd Batch and Supplementary of the previous year (1928-29) and up to March, 1930, Final 1st Batch of the year 1929-30.

(Sd.) S. C. SEN,

Assistant Audit Officers,  
Northern India Circle, Commercial Audit Branch.  
OPIUM DEPARTMENT.

SECTION I.—FINANCIAL REVIEW BY THE OPIUM AGENT ON THE COST ACCOUNTS FOR THE YEAR ENDED 30TH SEPTEMBER 1931.

128. The following summarised accounts are affixed :—

- (a) The Balance Sheet showing the balances as at 30th September 1930 and 30th September 1931 ;
- (b) Consolidated Profit and Loss account showing comparative figures of two costing years, viz., those ended, 30th September 1930 and 30th September 1931 ;
- (c) Statement showing the output and production costs of important products for two years ; and,
- (d) Store account for the Opium Year 1930-31.

129. It will be seen from the Balance Sheet that the capital invested by the Government of India as at 30th September 1931 amounts to Rs. 1,42,60,761 including the sum of Rs. 10,21,977 on account of interest charges, cost of audit and accounting and pensionary liabilities for the year under review ; also Rs. 1,14,41,693 on account of the net profit for the year.

The fixed assets amount to Rs. 14,84,225 as against Rs. 15,35,409 in the previous year, the decrease representing reduction under buildings and plant and machinery. The actual reduction during the year was greater than the difference between these figures. The figure Rs. 15,35,409 for the previous year was incorrect. It should have included the value of the buildings and land at Bhatpar Rani in the Gorakhpur district which were erroneously shown as transferred to the U. P. Government during the costing year ended 30th September 1930. In fact they were not so transferred.

*Buildings.*—Owing to the gradual contraction of the activities of the Department no new works were undertaken, except the work in connection MIDCA



The following statement analyses the profit for each class of opium and compares it with the profit of the previous year :—

Particulars.	Year ended 30-9-30.	Year ended 30-9-31.
1. Provision opium .. .. .	1,24,72,503	1,11,52,239
2. Excise Opium Pure Benares .. .. .	60,267	51,203
3. Excise Opium—Blended (Benares 1/5 Malwa 4/5) .. .. .	2,27,354	47,856
4. Excise Opium—Blended (Benares 2/5 Malwa 3/5) .. .. .	7,47,722	1,96,270
5. Excise Opium—Blended (Benares 1/4 Malwa 3/4) .. .. .	..	376
6. Special Medical opium .. .. .	2,24,899	..
7. Indian Medical opium Powder .. .. .	(—)572	1,405
8. Indian Medical opium Cake .. .. .	308	882
9. Alkaloids .. .. .	7,036	2,035

131. *Stock Account.*—The progressive reduction of opium stocks will be apparent from the following table :—

Particulars.	On 30th September 1929.	On 30th September 1930.	On 30th September 1931.	Reduction or increase during 1930-31 as compared with the figures of 1929-30.
Raw opium Benares .. .. .	85,90,333	52,21,687	42,46,483	—9,75,204
Raw opium Malwa .. .. .	25,86,183	20,61,111	29,58,073	+8,96,962
Provision opium .. .. .	81,51,469	60,80,386	43,76,251	—17,04,135
Pure Benares excise opium .. .. .	2,01,455	2,21,023	1,37,265	—83,763
Blended excise opium—old (Benares 1/5 Malwa 4/5).	1,12,104	3,57,046	..	—3,57,046
Blended excise opium—new (Benares 2/5 Malwa 3/5).	..	2,56,518	65,713	—1,90,805
Blended excise opium—new (Benares 1/4 Malwa 3/4).	..	..	1,51,630	+1,51,630
Special medical opium .. .. .	2,82,500	1,23,949	9,569	—1,14,380
Miscellaneous .. .. .	2,95,168	3,52,296	3,18,174	—34,122
Sundry stores .. .. .	82,314	72,460	74,438	+1,978

The losses of opium due to shortages in the opium stocks for five successive years are detailed below :—

Opium year.	Losses due to shortage in the stock of :—			Total.
	Raw opium Benares.	Raw opium Malwa.		
1926-27 .. .. .	..	426	..	426
1927-28 .. .. .	101	130	..	231
1928-29 .. .. .	128	90	..	218
1929-30 .. .. .	83	99	..	182
1930-31 .. .. .	46	37	..	83

The shortages during the year under review (the value of which amounted to Rs. 39 thousand) were written off by the Opium Agent, as the percentage in each case was below the limit upto which power has been delegated to the Opium Agent, by the Government of India. These losses are due generally to the very great viscosity of opium which adheres to all the receptacles in which it is contained.

In addition, the Government of India sanctioned the write off of a sum of Rs. 98,579 being the value of about 169 maunds of raw Benares opium @ 70° found deficient on the exhaustion, on 13th January 1931, of the stock of opium received during the years 1925-29. Also the Opium Agent sanctioned the write off of a sum of Rs. 9,102 being the value of about 20 maunds of raw Malwa opium @ 70° found deficient on the exhaustion, on 9th July 1931, of the stock of raw Malwa opium received during the year 1929-30.

The value of leaf choor written off was charged to Provision opium. The stuff was not sold this year, as, on chemical examination, it was found to contain alkaloidal properties, though to a very small degree. Leaf is liable to destruction by maggots, and some loss is an inevitable consequence of storing this commodity.

*Sundry Stores Account.*—During the year under review, surplus and unserviceable stores to the value of Rs. 13,769 were written off. There was a balance of unserviceable stores brought forward from the previous year, valued at Rs. 366. In addition to the above, unserviceable stores, the book value of which amounted to Rs. 16,334, were received from District Opium Officers and the departments in the Factory, for disposal. The aggregate value of surplus and unserviceable stores thus amounted to Rs. 30,469. The lot was sold and realised Rs. 4,103.

*132. Profit and Loss and Production Accounts.*—The reduction in stocks referred to in paragraph 131 above brought down the interest charges during the year under review to 9·24 lakhs as against 11·69 lakhs and 17·91 lakhs in the two previous years.

The interest has been worked out @ 5·67% on capital outlay subsequent to 1916-17, as information in regard to the latest rate of 5·7% was not received until after the Cost Accounts for the year under review had been compiled. The interest charges in consequence of the difference in rates, which amount to about Rs. 5,000 will be adjusted in the accounts of the next year.

The general charges have reduced to Rs. 3·09 lakhs as against Rs. 3·23 lakhs of the previous year, despite the fact that under certain sub-heads under General charges, e.g., 'Factory Superintendent and staff', 'Factory Engineer and his staff', 'Store-keeping charges' and 'Factory Guards', there were slight increases as compared with charges under similar sub-heads in the previous year. The increase under 'Factory Superintendent and his staff' is due to the leave salary of the permanent Factory Superintendent as well as that of the officiating Factory Superintendent being debited to this sub-head. The increase under 'Factory Engineer and his staff' is due to the increment earned by the permanent Factory Engineer and also to the pay of his clerk being debited to this sub-head of general charges instead of to the sub-head 'Factory Superintendent and staff' as hitherto. The increase under 'Store-keeping

charges ' is due to the leave salary of the permanent Store Keeper as well as that of the officiating Store Keeper being debited to this sub-head, also to the writes-off this year being more than that of the previous year. The increase under ' Factory Guards ' is due to the charges in connection with the maintenance of the extra guard sanctioned by the Government of India for the defence of the Opium Factory being debited to this sub-head.

During the year under review the proportion of raw Benares and raw Malwa Opium issued for the manufacture of Blended excise opium was changed from 2/5 Benares and 3/5 Malwa to 1/4 Benares and 3/4 Malwa.

**133. Manufacture of Excise Opium.**—The quantities of Excise opium manufactured and issued during the year were as follows :—

Particulars.	Blended Excise Opium.				Total.
	Pure Benares Excise.	Benares 1/5 Malwa 4/5	Benares 2/5 Malwa 3/5	Benares 1/4 Malwa 3/4	
	Mds.	Mds.	Mds.	Mds.	Mds.
Opening balance on 1st October 1930.	150	287	..	..	437
Manufactured during the year ..	539	212	5,956	23	6,730
Issued during the year ..	581	499	5,956	23	7,059
Balance on 30th September 1931	108	..	..	..	108

The statement below compares the cost price per seer of Excise opium as worked out during the year under review with those of the two previous years :—

Particulars.	Opium year 1928-29.	Opium year 1929-30.	Opium year 1930-31.
	Rs.	Rs.	Rs.
1. Pure Benares Excise .. .. .	25 3 0	21 14 0	21 1 0
2. Blended Excise (Benares 1/5 and Malwa 4/5)	21 10 0	18 3 0	20 7 0
3. Blended Excise (Benares 2/5 and Malwa 3/5)	..	18 9 0	18 8 0
4. Blended Excise (Benares 1/4 and Malwa 3/4)	..	..	18 6 0

As the issue rates of Excise opium to Provincial Governments for a financial year are to be calculated on the basis of actual cost of production for the previous opium year (paragraph 110 of the Appendix to the Central Civil Appropriation accounts for 1928-29), the fall in the production costs in the case of (1) and (3) resulted in a profit under those heads during the year under review. There was also a profit in the case of items (2) and (4) owing to sales of these blends having been made at Rs. 21-10-0 and Rs. 18-9-0 per seer, respectively.

**134. Manufacture of Special Medical opium @ 87·50°.**—There being no demand for Special Medical opium none was manufactured during the year under review. There remains a balance of about 1,100 lbs. of unfinished stock in this account which will be utilised for the manufacture of Indian Medical opium ; and if there is still no demand for Special Medical opium, the Special Medical opium account will not be prepared.

**135. Indian Medical opium—Cake and Powder.**—The following statement compares the output and production rates of the year under review with those worked out for the preceding year, and the sanctioned selling rates :—

Year.	Output.	Production rate per lb.	Sanctioned selling price per lb.
<i>Powder.</i>			
		Rs. A. P.	
1928-29	.. 919	20 5 7	Rs. 20 for private firms. Rs. 12-8 for Medical Store-keepers.
1929-30	.. 1146	14 6 8	Rs. 15-8 for Indian States and Railways.
1930-31	.. 1562	14 5 11	Upto 31st March 1929 rates as above and Rs. 15 to all since that date.
<i>Cake.</i>			
1928-29	.. 942	12 2 0	Rs. 19 to private firms. Rs. 11-8 to Medical Store-keepers.
1929-30	.. 862	9 11 5	Rs. 13-12 to Indian States and Railways.
1930-31	.. 702	11 9 1	Upto 31st March 1929 rates as above and Rs. 11 to all since that date.

**136. Cost of production.**—The reduction in the cost of production in the case of Indian Medical Opium Powder is due to reduction in interest charges ; and the increase in the cost of production in the case of Indian Medical Opium Cake is due to less manufacture and increase in interest charges.

**137. Alkaloids.**—There was a profit of Rs. 2,035 during the year under review as compared with the profit of Rs. 7,036 during the previous year. The decrease in profit is due to increase in interest charges and a smaller closing balance.

The closing balance contains 35 lbs. of Codeine sent to England during the Costing Year 1929-30, which has not yet been sold.

**138. Biscuit opium.**—During the year an experiment was begun of making biscuits out of Malwa opium. Six maunds at a consistence of about 93° were in process of manufacture on 30th September 1931. On completion of manufacture, this stuff will be supplied to Ajmer-Merwara in the form of samples ; and, if the experiment is found to be successful, manufacture for the full demand of Ajmer-Merwara will be undertaken in accordance with the orders of the Government of India.

**139. Mewar opium.**—The Government of India have undertaken to purchase during the period of next ten years, commencing from January 1, 1931, all the existing stocks of opium in Mewar, computed to be 8,000 chests.

During the costing year ended 30th September 1931 the charges in connection with the purchase of Mewar opium amounted to Rs. 7,23,817, while Rs. 1,31,535 worth of opium was sold. No information regarding quantities purchased and sold during the year under review being available at the time of closing the annual cost accounts the results of these transactions were not incorporated therein.



140. *Raw Benares and Malwa opium.*—The decrease in the cost rates per maund of raw Benares and Malwa opium @ 70° is due mainly to more purchases during the year.

It will be observed from the Balance Sheet as at 30th September 1931 that Rs. 1,08,256 have been shown as a liability on account of purchase of Malwa opium during the year under review. This amount represents the additional amount to be paid to the Malwa States on account of bonus on opium subsequently declared to be oil-free.

141. *Inferior opium.*—The decrease in the cost rate per maund during the year is due to larger receipts of the poorer grades of opium generally classed as inferior.

142. *Chests and Compartments.*—The increase in the cost rates of mango chests, provision and abkari and compartments, abkari, is due to purchases on a smaller scale.

#### SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

143. *Paragraph 129 of the Financial Review.*—As a result of the reduction in opium stocks and other stores held there has been a steady reduction in the figure of the Capital invested by Government in the concern. The figures for the last 6 years are given below in lakhs of rupees :—

	Year ended.				Lakhs of Rupees.	
31st October 1926 .. .. .	..	..	..	..	485·82	
30th September 1927 .. .. .	..	..	..	..	456·04	
30th September 1928 .. .. .	..	..	..	..	323·28	
30th September 1929 .. .. .	..	..	..	..	224·56	
30th September 1930 .. .. .	..	..	..	..	167·49	
30th September 1931 .. .. .	..	..	..	..	142·61	

The above figures include amounts due to Government on account of charges for interest, cost of audit and accounts, pensionary liabilities, etc., and the net profit realised during the year.

144. *Paragraph 131 of the Financial Review.*—The value of opium stocks and other stores held during the last 5 years was as follows in lakhs of rupees :—

	30th Sep. 1927.	30th Sep. 1928.	30th Sep. 1929.	30th Sep. 1930.	30th Sep. 1931.
Opium stock .. .. .	390·92	300·42	202·19	146·74	122·6
Sundry Stores .. .. .	1·36	1·06	0·82	0·72	0·74

145. *Paragraph 132 of the Financial Review.*—As a result of the reduction on the figure of Government Capital account the interest charges have also come down:—

	Interest charges in lakhs of rupees.				
1926-27 (for 11 months) .. .. .	..	..	..	..	23·53
1927-28 .. .. .	..	..	..	..	23·10
1928-29 .. .. .	..	..	..	..	17·91
1929-30 .. .. .	..	..	..	..	11·69
1930-31 .. .. .	..	..	..	..	9·24

This in turn has helped to reduce costs of production :—

				1928-29.	1929-30.	1930-31.
				Rs. a. p.	Rs. a. p.	Rs. a. p.
Provision opium per chest	..	..	..	1,392 8 0	1,240 6 8	1,150 13 4
Cost of packing	..	..	..	24 0 11	16 14 3	16 13 10
Pure Benares per seer	..	..	..	25 2 8	21 14 0	21 0 7
Blended Excise—						
1 : 4	..	..	..	21 10 0	18 3 4	20 6 10
2 : 3	..	..	..	..	18 9 4	18 8 2
1 : 3	..	..	..	..	..	18 5 8

The stock of the blend 1 : 4 has been exhausted and the manufacture of this blend discontinued. The change in blend is referred to in the Opium Agent's review.

## OPIMUM DEPARTMENT.

## 146. Balance Sheet as at 30th September 1930 and 1931.

Liabilities.	As at 30th September 1930.		As at 30th September 1931.		Assets.	As at 30th September 1930.		As at 30th September 1931.	
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
<i>Sundry creditors for—</i>					<i>Land</i>				
Railway freight	9,306		7,864		Less disposals during the year	48,971		48,168	
Contractors for chests	8,480		8,729			2,073		1,218	
Purchase of Malwa opium	..		1,08,256		Buildings (original value)		46,898		46,950
					Additions during the year	14,73,008		14,39,439	
						1,419		5,694	
<i>Government of India Capital Account</i>	46,06,105								
Adjustments during the year for interest, profit, etc.	1,78,503		17,46,856		Deduct disposals during the year	14,74,427		14,45,133	
					Deduct depreciation written off to date	44,513		32,576	
	1,78,50,304		1,50,02,260			1,54,726		1,83,467	
	2,24,56,409								12,29,090
<i>Add cash withdrawn from treasuries and adjustments.</i>	67,16,331		1,67,49,116		Plant and Machinery	1,33,665		1,38,908	
					Add additions during the year	19,630		2,391	
	2,91,72,740		2,39,45,812						
<i>Deduct cash remittances into treasuries and adjustments</i>	2,74,25,384		2,21,48,721		Deduct disposals during the year	1,53,295		1,41,299	
					Deduct depreciation written off to date	14,387		..	
						25,585		33,114	
<i>Indirect charges for the year :—</i>					Furniture and Fittings		1,13,323		1,08,185
Interest	17,46,856		17,97,091		<i>Stock on hand :—</i>		1,00,000		1,00,000
Cost of audit and accounts	11,69,378		9,24,274		Opium, etc., <i>vide</i> Store account		1,46,74,021		1,22,63,158
Pensionary contribution	22,892		24,503		Sundry stores		72,400		74,438
Profit for the year	89,417		73,195		Sundry debtors		145		706
	1,37,20,573		1,14,41,693		Advances outstanding		4,82,777		5,61,083
					Advances for labour		90		..
					Permanent Advance		2,000		1,800
	1,67,49,116		1,42,60,761						
					Total	..	1,67,66,902	..	1,43,85,410
Total	1,67,66,902		1,43,85,410						

(Sd.) V. G. HARDIE,  
Superintendent, Costing Section.(Sd.) C. BHASKARAIYA,  
Asstt. Director of Commercial Audit,  
Calcutta Circle.(Sd.) G. B. F. MUIR,  
Opium Agent.

## OPIMUM DEPARTMENT.

147. Profit and Loss account for the costing years ended 30th September 1930 and 1931.

To—	Particulars.	1929-30. Amount. Rs.	1930-31. Amount. Rs.
<i>Opening Balance.</i>			
Provision Opium		81,51,469	60,80,386
Excise Opium Benares (in progress)		2,01,455	89,778
Excise Opium Benares (finished)		..	1,31,250
Excise Opium Blended—Old (in progress)		29,929	1,48,014
Excise Opium Blended—Old (finished)		82,175	2,09,032
Excise Opium Blended—New (in progress)		..	2,56,518
Excise Opium Blended—Old (finished)		..	1,23,949
Special Medical Opium (in progress)		1,49,708	..
Special Medical Opium (finished)		1,32,792	..
Indian Medical Opium Powder (in progress)		290	117
Indian Medical Opium Powder (finished)		6,512	663
Indian Medical Opium Cake (finished)		3,686	4,828
Alkaloids		20,566	26,103
<i>Manufacturing charges.</i>			
Provision Opium		43,08,655	29,51,549
Excise Opium Benares		3,71,710	3,56,659
Excise Opium Blended—Old (B: M:: 1: 4)		11,80,114	2,388
Excise Opium Blended—New (B: M:: 2: 3)		43,17,718	37,75,292
Excise Opium Blended (B: M:: 1: 3)		..	1,54,312
Special Medical Opium		2,62,353	32,985
Indian Medical Opium Powder		15,580	22,279
Indian Medical Opium Cake		7,962	7,227
Alkaloids		5,554	4,971
Biscuit Opium		..	4,049

By—	Particulars.	1929-30. Amount. Rs.	1930-31. Amount. Rs.
<i>Sales.</i>			
Provision Opium		1,97,25,050	1,64,88,247
Excise Opium Benares		4,54,003	5,45,104
Excise Opium Blended—Old (B: M:: 1: 4)		12,81,083	4,30,121
Excise Opium Blended—New (B: M:: 2: 3)		52,17,351	46,03,781
Excise Opium Blended (B: M:: 1: 3)		..	17,263
Special Medical Opium		6,73,715	..
Indian Medical Opium—Powder		21,797	20,904
Indian Medical Opium—Cake		7,541	9,079
Alkaloids		17,725	19,694
Interdepartmental issues		20,887	1,61,711
<i>Closing balance.</i>			
Provision Opium		60,80,386	43,76,251
Excise Opium Benares (in progress)		89,778	46,388
Excise Opium Benares (finished)		1,31,250	90,878
Excise Opium Blended—Old (B: M:: 1: 4)		1,48,014	..
Excise Opium Blended—Old (B: M:: 1: 4)		2,09,032	..
Excise Opium Blended—New (B: M:: 2: 3)		2,56,518	65,713
Excise Opium (in progress)		1,23,949	9,569
Special Medical Opium (in progress)		..	..
Indian Medical Opium Powder (in progress)		117	639
Indian Medical Opium Powder (finished)		663	3,607
Indian Medical Opium Cake (finished)		4,828	4,386

General Charges . . . . .	3,00,279	2,84,741	Alkaloids	26,103	15,899
Cost of audit and accounting . . . . .	22,892	24,508	Biscuit Opium (unfinished)	..	4,275
Interest Charges . . . . .	11,69,378	9,24,274	Excise Opium Blended (B : M :: 1 : 3)	..	1,51,630
Loss on sales of buildings . . . . .	16,739	11,592	Miscellaneous receipts . . . . .	386	1,018
Loss on sales of Plant and Machinery . . . . .	3,090	..			
Net Profit	1,37,20,573	1,14,41,693			
Total . . . . .	3,44,90,179	2,70,69,157	Total . . . . .	3,44,90,179	2,70,69,157

## OPIUM DEPARTMENT.

148. Statement showing the out put and production costs of important products for two years.

Products.	Unit.	1929-30.		1930-31.		Remarks.
		Out put.	Rate.	Out put.	Rate.	
Provision Opium—Cakes	Each	1,63,300	31 0 2	1,22,320	28 12 4	
Provision Opium—Chests	Each	4,566	1,240 6 8	4,089	1,150 13 4	
Pure Benares Excise Opium	Maunds @ 90°	600	21 14 0	539	21 0 7	Per seer.
Blended Excise Opium (B: M :: 1:4)	Do.	1,620	18 3 4	212	20 6 10	Do.
Blended Excise Opium (B: M :: 2:3)	Do.	6,013	18 9 4	5,956	18 8 2	Do.
Blended Excise Opium (B: M :: 1:3)	Do.	..	..	23	18 5 8	Do.
Special Medical Opium—British	Chest @ 87.50°	160	1,760 8 6	..	..	
Indian Medical Opium—Powder	Pound @ 100°	1,146	14 6 8	1,562	14 5 11	
Indian Medical Opium—Cake	Pound @ 90°	862	9 11 5	702	11 9 1	
Raw Opium—Benares	Maund @ 70°	7,098	495 10 11	7,613	481 14 7	
Raw Opium	Do.	343	219 11 11	342	127 5 6	
Raw Opium—Malwa in term of class A	Do.	6,021	447 3 1	6,956	437 6 3	
Leaf	Maund	1,655	25 4 7	1,196	25 11 1	
Trash	Do.	1,582	4 3 2	975	4 9 3	
Chest—Provision mango	Each	5,722	7 13 4	2,620	10 11 0	
Chest—5 ply assembled	Do.	670	9 11 0	..	..	
Chest—Abkari Mango	Do.	7,998	3 14 6	5,954	4 6 11	
Chest—Medical Opium	Do.	311	4 14 8	..	..	
Compartments—Provision	Do.	9,470	0 9 2	9,592	0 10 1	
Compartments—Abkari	Do.	8,442	0 5 0	21,433	0 4 7	
Cups	Do.	2,52,000	0 0 3.8	1,75,000	0 0 4.5	



OPIMUM DEPARTMENT.

149-A. Stores account for the Opium Year 1930-31.

Particulars.	Excise Opium.													
	Raw opium.			Provision opium.			Pure Benares.		Benares-Malwa Blended (B: M:: 1: 4)		Benares-Malwa Blended (B: M:: 2: 3)		Benares-Malwa Blended (B: M:: 1: 3).	
	Quantity.	Value.	Rs.	Quantity.	Value.	Rs.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Mds.			Chests.			Mds.		Mds.		Mds.		Mds.	
Opening balance	13,917	72,82,798		4,804½	60,80,386		266	2,21,028	507	3,57,046	371	2,56,618	..	..
Receipts from all sources.	14,569	67,11,276		3,058	36,31,874		502	4,11,723	2	25,961	5,801	42,21,912	250	1,68,517
Total (A)	28,486	1,39,94,074		7,862½	97,12,260		768	6,32,751	509	3,83,007	6,172	44,78,430	250	1,68,517
Issues of all kinds	13,351	66,14,459		4,122	1,64,83,247		593	5,46,688	509	4,30,863	6,041	46,08,987	23	17,263
Wastages written off	333	1,75,030		..	..		4	..	..	..	34	..	..	..
Total (B)	13,684	67,89,519		4,122	1,64,88,247		597	5,46,688	509	4,30,863	6,075	46,08,987	23	17,263
Closing balance (C)	14,802	72,04,555		3,740½	43,76,251		171	1,37,265	..	..	97	65,713	227	1,51,630

Particulars.	Biscuit opium.				Alkaloids.				Medical opium U. K.				Indian Medical opium for India.				*Miscellaneous.	
	Quantity.		Value.		Quantity.		Value.		Quantity.		Value.		Powder.		Cake.			
	Mds.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	Quantity.	Value.	lbs.	Rs.	Quantity.	Value.	Rs.	Quantity.	Value.	
Opening balance .	..	..	587	26,104	18,434	1,23,949	56	780	497	4,828	..	3,20,585	..	4,48,588	..	3,20,585	..	4,48,588
Receipts from all sources.	6	4,275	93	7,454	5,095	42,792	1,604	22,965	728	7,761	..	4,48,588	..	4,48,588	..	4,48,588	..	4,48,588
Total (A)	6	4,275	680	33,558	23,529	1,66,741	1,660	23,745	1,225	12,589	..	7,69,173	..	7,69,173	..	7,69,173	..	7,69,173
Issues of all kinds .	..	..	357	19,694	22,436	1,57,172	1,357	20,904	806	9,085	..	4,79,236	..	4,79,236	..	4,79,236	..	4,79,236
Wastages written off	..	..	..	..	..	..	..	..	22	..	..	570	..	570	..	570	..	570
Total (B)	..	..	357	19,694	22,436	1,57,172	1,357	20,904	828	9,085	..	4,79,806	..	4,79,806	..	4,79,806	..	4,79,806
Closing balance (C).	6	4,275	323	15,899	1,093	9,569	303	4,246	397	4,386	..	2,89,367	..	2,89,367	..	2,89,367	..	2,89,367

The difference between A and (B + C) represents profit or loss.

\* Includes following classes of stores :—

Inferior opium, contraband opium, dhori, lewa, leaf, trash, cups, chests and compartments.

† Quantity and value account of miscellaneous stores attached in separate statements.

(Sd.) V. G. HARDIE, (Sd.) C. BHASKARAIYA, (Sd.) I. F. MURPHY, SUPDT., for G. B. F. MUIR,  
 Superintendent Costing Section. Asstt. Director of Commercial Audit, Opium Agent.  
 Calcutta Circle.

## OPIUM DEPARTMENT.

149-B. Statement showing details of opening balances, receipts, issues and closing balances by quantity of other stores treated as miscellaneous in the Stores account for the year 1930-31.

Particulars.	Opening balance		Receipts from all sources.		Total.		Issues of all kinds.		Wastage written off.		Total issues.		Closing balance.		Remarks.
	Quan- tity. Mds.	Num- ber.	Quan- tity. Mds.	Num- ber.	Quan- tity. Mds.	Num- ber.	Quan- tity.	Num- ber.	Quan- tity.	Num- ber.	Quan- tity.	Num- ber.	Quan- tity.	Num- ber.	
Inferior Opium . . . . .	500	..	342	..	842	..	629	..	..	..	629	..	213	..	
Leaf . . . . .	1,042	..	1,196	..	2,238	..	1,505	..	6	..	1,571	..	667	..	
Trash . . . . .	6,612	..	975	..	7,587	..	2,929	..	..	..	2,929	..	4,658	..	
Chests—Provision Mango . . . . .	..	6,295	..	2,020	..	8,915	..	4,089	..	45	..	4,134	..	4,781	
Chests—Abkari Mango . . . . .	..	4,346	..	6,654	..	11,300	..	4,243	..	..	..	4,243	..	7,057	
Chests—Special Medical Opium Mango—New . . . . .	..	990	..	..	..	990	..	651	..	..	..	651	..	339	
Chests—Special Medical Opium old but serviceable . . . . .	..	49	..	..	..	49	..	49	..	..	..	49	..	..	
Compartments—Provision . . . . .	..	7,912	..	9,592	..	16,604	..	8,850	..	..	..	8,860	..	7,744	
Compartments—Abkari . . . . .	..	2,114	..	21,433	..	23,577	..	9,128	..	..	..	9,128	..	14,449	
Cups . . . . .	..	3,03,667	..	1,75,000	..	4,78,667	..	1,94,216	..	..	..	1,94,216	..	2,84,451	
Lewa . . . . .	67	..	1,349	..	1,416	..	1,078	..	..	..	1,078	..	333	..	
Factory Dhoi in Dhoi Khana . . . . .	251	..	..	..	251	..	50	..	..	..	50	..	201	..	
Factory Dhoi in Laboratory . . . . .	197	..	157	..	354	..	..	..	..	..	..	..	354	..	
District Dhoi in Laboratory . . . . .	49	..	15	..	64	..	..	..	..	..	..	..	64	..	
Centaband Opium . . . . .	106	..	39	..	145	..	..	..	..	..	..	..	145	..	
Total . . . . .	8,824	3,24,803	4,073	2,15,299	12,897	5,40,102	6,251	2,21,236	6	45	6,257	2,21,281	6,640	3,18,821	

## OPIMUM DEPARTMENT.

149 C. Statement showing details of opening balances, receipts, issues and closing balances by amounts of other stores treated as miscellaneous in the Stores account for the year 1930-31.

Particulars.	Opening balance.	Receipts.	Issues.		Closing balance.	Remarks.
			Actual issues.	Wastage or shortage written off.		
	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	
Inferior Opium	1,11,526 4	43,550 11	1,15,847 6	..	39,229 9	
Leaf	26,489 0	30,723 4	40,005 5	153 6	17,053 9	
Trash	29,534 4	4,461 3	13,119 8	..	20,875 15	
Chests—Provision mango	54,486 7	28,008 0	37,844 9	*416 8	44,233 6	* Rejection.
Chests—Abkari mango	19,287 8	30,451 12	18,673 11	..	31,065 9	
Chests—Special Medical Opium mango (new)	5,379 8	547 11	3,899 4	..	2,027 15	
Chests—Special Medical Opium old but serviceable	150 11	4 9	155 4	..	..	
Compartment—Provision Opium	4,573 11	6,042 4	5,675 15	..	4,940 0	
Compartment—Abkari Opium	675 5	6,144 15	2,662 5	..	4,157 15	
Cups	6,181 1	4,165 13	4,197 14	..	6,149 0	
Lewa	26,926 6	2,79,355 4	2,33,555 7	..	73,226 3	
Factory Dhoi in Dhoi Khana	18,072 0	5,903 12	3,600 0	..	14,472 0	
Factory Dhoi in Laboratory	12,269 4	..	..	..	17,273 0	
District Dhoi in Laboratory	608 3	66 12	..	..	674 15	
Contraband Opium	4,425 1	9,562 8	..	..	13,987 9	
Total	3,20,584 9	4,48,588 6	4,79,236 8	569 14	2,89,366 9	

## CHAPTER IV.

## Government of India—Education, Health and Lands Department Concerns.

## MATHEMATICAL INSTRUMENT OFFICE, CALCUTTA.

## SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS OF THE YEAR 1930-31.

150. The net result on the working of the M. I. O. during the year 1930-31 was a loss of Rs. 33,441. The details are as noted below :—

	1928-29.	1929-30.	1930-31.
	Rs.	Rs.	Rs.
Gross profit on Repairs*, Manufactures† and Workshop transfer‡—	3,31,422	3,22,226	3,12,189
Gross profit on sales§	57,729	46,276	40,248
Miscellaneous receipts	3,576	2,137	4,413
	3,92,727	3,70,639	3,56,850
Deduct—Wages and other general charges	3,44,780	3,55,507	3,44,713
	47,947	15,132	12,137
Deduct—Interest on capital	35,518	36,382	45,578
	12,429	—21,250	—33,441

From the above report it will be seen that the M. I. O. has made a loss of about Rs. 33,400, but in justice to the Workshop, I think, it is necessary to give a brief description of how the loss was sustained. The Workshop and Stores are so closely allied that it is necessary to have a combined Profit and Loss Account, but for the efficient working, the Management prepares every month two Profit and Loss Accounts, one for the Stores and one for Workshops, and allocates|| the overhead as below :—

	Workshop.	Stores.
Non-earning units	73%	27%
Other than non-earning units, such as rent, taxes, electricity, office expenses, interest on capital, etc.	56%	44%
	129%	71%

\* Repairs mean all kinds of repairing work done for any Government Department.

† Manufacture mean demands from our own store for stock and indent.

‡ Workshop transfer means reconditioning of second-hand instruments for either stock or issue.

§ Sale means any transaction by the stores.

|| This allocation of overhead obviously cannot be used by the Audit as the allocation is to a great extent arbitrary and varies from time to time; for instance, take the salary of the Superintendent, during the year under review a good bit of his time was spent on making a success of the working of the new Accounting Machine. During the current year, 90% of his time was spent in reorganising the Dial Sight repair shop and will be for next three months. In fact his time must be spent whenever trouble occurs or is likely to occur.

The two Profit and Loss Accounts worked out on the above percentage of overhead are as below, from which it will be seen that the Workshop has made a profit of Rs. 6,914 and the stores have made a loss of Rs. 40,356 :—

Wages and general charges . . . . .	3,44,713	It will be seen from the Profit and Loss Statements that wages expended both for productive and unproductive labour during the year under review are —
Interest on capital . . . . .	45,578	
	<u>3,90,291</u>	
Deduct—Earning units . . . . .	1,55,475	
Net overheads . . . . .	<u>2,34,816</u>	
Deduct—Non-earning units and you will find the overhead other than non-earning units . . . . .	1,11,336	
	<u>1,23,480</u>	
		Rs. 2,66,811
		Loss * . 1,11,336
		<u>1,55,475</u>
Amount for non-earning units . . . . .	1,11,336	
Other than non-earning units . . . . .	1,23,480	
	<u>2,34,816</u>	*Representing unproductive labour as per my allocation of overhead charges for labour.
Debit Workshop—		
73% of non-earning units . . . . .	81,275	
56% of other than non-earning units . . . . .	69,149	
	<u>1,50,424</u>	
Debit Stores—		
27% of non-earning units . . . . .	30,061	
44% of other than non-earning units . . . . .	54,331	
	<u>84,392</u>	
Gross Profit in Works . . . . .	3,12,189	
Deduct—Earning units . . . . .	1,55,475	
	<u>1,56,714</u>	
Deduct—Overheads . . . . .	1,50,424	
	<u>6,290</u>	
Miscellaneous receipts . . . . .	624	
	<u>6,914</u>	
Net profit . . . . .		
Gross Profit by sales . . . . .		40,248
Add miscellaneous receipts . . . . .		3,789
		<u>44,037</u>
Deduct—Overhead . . . . .		84,392
		<u>40,356</u>
	Loss . . . . .	



Loss in combined Profit and Loss Account Rs. 33,441. The repairs done in the Workshop were fairly good, but there was a large drop in manufacture which was unavoidable, as during the year under review demands for all kinds of new instruments fell considerably, as will be seen from statement below :—

	1928-29.	1929-30.	1930-31.
Repairs . . . . .	2,44,069	2,21,510	2,13,906
Manufacture . . . . .	3,39,871	3,08,334	2,53,015
Sales . . . . .	5,39,308	4,20,131	3,78,291

151. I also furnish below details of increases and decreases under direct and indirect charges for your information :—

	1929-30.	1930-31.
Wages . . . . .	2,68,416	2,66,811
Interest on capital or interest charges . . . . .	36,382	45,578
Depreciation . . . . .	6,672	7,512
Pensionary charges . . . . .	28,472	20,364
Rents, Rates and Taxes . . . . .	22,285	22,903
Sundry Expenses . . . . .	23,034	20,213
Telephone . . . . .	640	620
Audit fee . . . . .	1,500	3,000
Police charges . . . . .	1,820	1,820
Passage . . . . .	1,200	600

(for two years)

152. (a) The increase under head "Interest charges" was due to increase of capital and also increase in the rate of interest from 5·3% to 5·68%.

(b) The increase under head "Depreciation" was due to the percentage for wear and tear having had to be charged on to the new Plants and Machineries added during the year.

(c) The decrease under head "Pensionary Charges" was due to the introduction of the new system of calculation furnished by the Audit Department.

(d) The decrease under head "Sundry Expenses" was greatly due to a considerable retrenchment in Printing and Stationery which resulted in a saving of about Rs. 2,500.

(e) The increase under head "Audit Fee" was due to a provision now being made for the cost of work done by the Pay and Accounts Office, and I contend that this should not be debited against M. I. O. as per note dated 5th June 1930 of the Surveyor General.

153. The capital invested by the Government on this concern at the end of the official year is as below :—

	Rs.
31st March 1929 . . . . .	6,71,298
31st March 1930 . . . . .	7,62,099
31st March 1931 . . . . .	8,41,280

The capital on 31st March 1931 was increased by Rs. 79,181 which was due to accumulation of stock on account of drop in sales. Arrangements have, however, been made to curtail the Home Indents as much as possible to bring down the capital.

Value of stock of articles in—

	1928-29.	1929-30.	1930-31.
	Rs.	Rs.	Rs.
Serviceable stores . . . . .	3,09,749	4,10,839	4,54,147
Material stores . . . . .	2,02,796	2,00,285	2,06,718
Repairable stores . . . . .	96,260	1,06,575	1,28,331

*Stock-taking.*

154. Continuous stock-taking of stores has been carried out by two assistants specially trained for the purpose under the supervision of the Junior Assistant Superintendent, and the discrepancies found have all been adjusted under sanction of the Surveyor General.

155. *Sundry Debtors.*—Almost all the items have been realised.

156. *Costing System.*—Our present system of costing account was shown to the Director, Commercial Audit, when he came to this office in April 1931. He was satisfied with the system in vogue and did not press for any alteration. The matter will however be taken in hand when our new accounting machine will successfully enter up all the M. I. O. stock ledgers.

157. During the year, a sum of Rs. 9,562 has been added to the cost of Plants and Machineries—some of the important ones are named below :—

- (1) Zeiss Refractometer.
- (2) Accounting machine with six live Totalisers.
- (3) Cabinet cardex (for finding reference easily).
- (4) Engraving Machine.
- (5) Collimators and Collimating Stands for adjusting theodolites and levels.

158. During the year under review, an Accounting Machine was installed for the posting of all issues and receipts, etc., relating to serviceable stores and the results were very satisfactory, there being no discrepancy between the final ledger balances and the serviceable stores control account. The time taken was less than we anticipated. Hence the same machine is now being used for the posting of all three stores, viz., Serviceable, Material and Repairable. At present we are rather behind hand in postings but I hope to be up-to-date by the middle of September 1931.

The reason for being behind hand is due to the fact that we have had to wait until the material ledgers were balanced by hand before we could start any postings by the machine; but I anticipate completion of all ledger balances next year within two weeks after their date of closing.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

159. *Paragraph 150 of the financial review.*—(a) Audit was not in a position to check this allocation of overhead expenditure.

(b) The net profit or loss during the last 4 years is shown below :—

Year.	Net Profit. Net Loss.	
	Rs.	Rs.
1927-28 . . . . .	1,603	..
1928-29 . . . . .	12,429	..
1929-30 . . . . .	..	21,250
1930-31 . . . . .	..	33,441

The loss during the year 1930-31 has, as compared with the previous year increased by 57·3% and the reasons thereof are given in the financial review of the Superintendent. Briefly the several activities have shown decreases during 1930-31 as compared with the previous year as below :—

Repairs . . . . .	3·4%
Manufacture . . . . .	17·9%
Sales . . . . .	9·9%
<hr/>	
Total . . . . .	31·2%
<hr/>	

A reference is also invited to paragraph 216 of the 1929-30 Appendix dealing with the forecast of the year under review.

160. *Paragraph 151 (c) of the financial review.*—The audit fee has been increased by Rs. 1,500 as the charge for audit and accountancy work done by the Pay and Accounts Officer and Audit Officer, Survey and Miscellaneous has been raised from Rs. 500 to Rs. 2,000. While no remarks can be offered regarding the adequacy or otherwise of the charge it is pointed out that the cost of the work in question would be a legitimate charge against the concern.

161. There has been a continuous increase in work-in-progress at the close of the financial years as below :—

	Rs.
As at 31st March 1928 . . . . .	32,720
As at 31st March 1929 . . . . .	35,969
As at 31st March 1930 . . . . .	40,808
As at 31st March 1931 . . . . .	49,003

The head “work-in-progress” includes certain items carried forward for several years which are accounted for a number of military contracts being in hand which are to be completed by a specified time.



## MATHEMATICAL INSTRUMENT OFFICE, CALCUTTA.

## 163. Consolidated Trading and Profit and Loss account for the year 1930-31.

	1929-30.	1930-31.		1929-30.	1930-31.
	Rs.	Rs.		Rs.	Rs.
To work-in-progress . . . . .	35,969	40,808	By manufacture . . . . .	3,08,352	2,21,530
" repairable instruments in works . . . . .	5,085	3,647	" instruments sold . . . . .	4,20,131	2,78,291
" book-value of instruments sold . . . . .	3,73,836	3,33,043	" repair charges recovered . . . . .	2,21,510	2,13,906
" wages (Works and General) . . . . .	2,68,416	2,63,811	" sale-proceeds of condemned stores . . . . .	1,312	2,625
" repairable stores, W. T. components, etc. . . . .	2,11,013	1,61,618	" profit on revaluation stock . . . . .	825	731
" interest on capital . . . . .	36,352	45,578	" profit on stock-taking . . . . .	..	432
" depreciation . . . . .	6,672	7,512	" work-in-progress . . . . .	40,803	40,003
" pensionary charges . . . . .	28,472	20,364	" repairable instruments in works . . . . .	3,648	2,339
" rents, rates and taxes . . . . .	22,285	22,904	" workshop transfer . . . . .	..	31,484
" audit fees . . . . .	1,500	3,000	" materials (scrap) . . . . .	..	624
" police charges . . . . .	1,829	1,820	" net loss . . . . .	21,250	33,441
" passage contribution . . . . .	1,200	600			
" Sundry and other expenses—					
Stationery and Printing, etc. . . . .	6,616	4,117			
Freight charges . . . . .	3,571	2,972			
Postage . . . . .	4,800	5,581			
Miscellaneous . . . . .	7,592	7,089			
Menials . . . . .	453	491			
" rent of phone . . . . .	640	623			
" value of stores written-off . . . . .	849	870			
" shortage in stock-taking . . . . .	620	..			
Total . . . . .	10,17,813	9,34,406	Total . . . . .	10,17,818	9,34,406





REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT ON THE ACCOUNTS OF THE  
MAP RECORD AND ISSUE OFFICE, CALCUTTA, FOR THE YEAR 1930-31.

165. As suggested in paragraph 230 of the 1929-30 Appendix, the following statement of Maps in numbers only has been prepared by the Map Record and Issue office :—

	No. of maps.
Opening Balance on 1st April 1930 . . . . .	18,33,255
Add—Receipts during the year 1930-31 . . . . .	3,50,899
	<hr/> 21,84,154
Less—issues during the year . . . . .	2,95,089
	<hr/> 18,89,065
Balance on 31st March 1931 . . . . .	

Audit is not in a position to certify the above statement as correct for the following reasons :—

- (i) The figure for the receipts during the year has not been taken from the books but has been worked out by deducting the opening balance from the total of the closing balance and issues during the year.
- (ii) The figure for issues during the year is not correct as the annual Stock Ledgers, from which the figure was taken, were not themselves correctly written up. Deficiencies at stock-verification and maps superseded have not been shown as issues in these stock ledgers.

For the purpose of this statement, all figures, *i.e.*, opening balances, receipts, issues and closing balances should be taken from the books and properly reconciled.

In reply to this objection, the Officer-in-charge, stated :—

“ The present system of loose leaf ledgers has only recently been introduced. The forms are defective in the respects mentioned and steps are being taken to rectify this ”.

REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT ON THE ACCOUNTS OF THE  
PHOTO LITHO OFFICE, CALCUTTA, FOR THE YEAR 1930-31.

166. A Store Account for the year 1930-31 has not been prepared as suggested in paragraph 229 of the 1929-30 Appendix. The Officer-in-Charge has, however, promised to draw up the account for the year 1931-32.

Under office order No. 40, dated 30th January 1932, 2477 X'mas cards were printed in the Photo Litho Office for officers of the Survey of India Department at a cost of Rs. 741-2-0 of which only Rs. 464-7-0 was realised as the recovery was not based on the full cost but was stated to represent Government out of pocket expenses, *i. e.*, labour and material only. In reply to a reference by audit the Director, Map Publication, stated that the office order No. 40 (old order No. 23 of 1912) under which the printing of the cards was justified has since been cancelled.

## GENERAL REMARKS INTRODUCTORY TO THE ACCOUNTS OF THE FARMS AND CREAMERY.

BY THE DIRECTOR OF COMMERCIAL AUDIT.

167. Bangalore, Wellington and Karnal Farms and Anand Creamery form a group of *quasi*-commercial concerns under the control of the Imperial Dairy Expert; their primary function is research and education and they were acquired, and are worked by the Government of India for the purpose of providing facilities for education and research in connection with the closely allied and important problems of animal husbandry and dairying. All of these four institutions have a specific part in the system of education, diploma and post-graduate, given by the Imperial Agricultural Department. Students are trained at these four centres, and each centre gives the particular class of teaching and experience for which it is particularly fitted and for which purpose it is maintained. Each institution does produce, however, marketable products, and the commercial side has been developed as a support to the educational side so that the best possible use may be made of revenue producing assets and the final cost of education and research may be as low as possible. The Accounts of the Farms and the Creamery are divided into two sections "Education and Research" and "Commercial" activities to exhibit on the one hand the cost to Government of the training of students and of research into problems of animal husbandry, and on the other of the trading in the produce of the Farms and Creamery. This division of accounts cannot isolate the effects of experiments on the commercial activities of the farm, for not infrequently experiments tend to incapacitate permanently or temporarily the best stock from functioning in a manner most profitable to the commercial side.

168. The reviews in this section deal with these institutions as entirely separate commercial units. The Dairy Expert claims that as these institutions form part of one educational and research scheme they should be judged by the combined results. Further, the financial results of farms are very largely affected by climatic conditions which vary from year to year, and by outbreaks of epizootic diseases which in some years may be prevalent, and in others non-existent, and it is therefore necessary to study results not of one year, but over a series of years. In deference to this view the group results of these institutions for the past four years are given below :—

Year.						Cost of Education and Research.	Commercial acti- vities. Profit or Loss (—).
						Rs.	Rs.
1927-28	.	.	.	.	.	1,36,310	27,712
1928-29	.	.	.	.	.	1,65,950	30,250
1929-30	.	.	.	.	.	1,77,306	30,438
1930-31	.	.	.	.	.	1,78,598	—18,686
Total						6,58,164	69,714

The average yearly profit for the four years on the commercial side is  
Rs. 17,430.

169. It may be mentioned that in the commercial accounts of Government Farms indirect charges such as Audit fees, Direction charges, Interest, etc., have not been included. These are given in a footnote to the accounts and the final results inclusive of these charges can be worked out if desired. The decision not to include these charges was taken by the Government of India and acquiesced in by the Auditor General for special reasons.

170. In dealing with the accounts of these institutions certain questions of general interest to the tax-payer were put to the authorities responsible for the control of these farms, and it might save the time of the Committee if the results of the enquiries were recorded here. It may be stated that the reasons given are the explanations of administrative authorities and not of the Commercial Audit Branch, but that the latter has no desire to impugn them.

To the question why milk production cannot be restricted to the demand and the available market the reply was that this is impossible because of the variability in the yield of the cow, her periods of calving, and of the available market. Yield is affected by weather conditions and the health of the animals; demand is affected by the health of the buying public. Supply and demand in milk is difficult to reconcile in any part of the world, and the usual policy followed by milk producers of supplementing their own supply by outside purchase cannot safely be followed by Government farms because of possible contamination of outside sources.

It was suggested that money might be made by the sale to the public of the improved young stock which it is the Farms' business to produce. The difficulty here urged is that there is no market yet in which such young stock will fetch economic prices because of the lack of appreciation of the advantages of improved stock. To create this appreciation is one of the functions of the whole organisation.

It will be noticed in the reviews of the Bangalore and Wellington Farms that selling prices were reduced to rates which do not cover the cost of production and of delivery. These reductions were made in sympathy with a fall in prices of dairy produce all over the world, and were imperative in order to retain the existing custom.

It is noticeable that Farm milk cannot be used for the production of butter at competitive prices. The reason is that the dairies produce cows' milk which contains 4 to 4½ per cent. of fat against the 7½ to 8 per cent. of fat in buffaloes milk. Hence it is impossible for butter made from cows' milk to sell at competitive prices in the open market. Further, milk produced on Government farms from expensive stock must be more expensive than that produced by animals grazing on common lands where there are no labour or overhead charges.

The essential reason for Government Farms not yielding greater profits is that the commercial activities are always influenced by requirements in connection with the primary purpose of education and research. If it were to be laid down that these institutions must pay their way even on the commercial side all research, experimental and educational work would have to cease.

## GENERAL REMARKS INTRODUCTORY TO THE ACCOUNTS AND REVIEWS OF THE FARMS AND CREAMERY.

BY THE IMPERIAL DAIRY EXPERT.

171. The three farms at Karnal, Bangalore and Wellington and the Creamery at Anand under my control were maintained on the same lines as indicated in the introductory note by the Director of Commercial Audit, *i.e.*, as *quasi*-commercial concerns with education and research as their primary functions.

On the educational and research side the activities of these institutions were much more amplified. There was also an increased demand made by the public for facilities for obtaining practical experience and for information on results obtained on the farms and creamery pertaining to problems relating to Animal Husbandry and Dairying.

The financial results of the farms for the year under review are detailed below. In spite of the prevailing trade depression and the reduction made in the sale rates of the dairy produce during the year, the farms at Bangalore and Karnal and the creamery at Anand showed a profit on their commercial working. The farm at Wellington, however, showed a loss of Rs. 35,376. Consequently the combined results of all the institutions on the commercial side showed a loss of Rs. 18,687 for the year. The principal reason for the Wellington farm showing such a loss was the outbreaks of epizootic diseases in the main dairy herd. These outbreaks not only deprived the farm of some of the best milk-yielding animals, but the milk yield of the remaining herd continued to be lower due to the after effects of these diseases on the milch animals.

	Profit.	Loss.
	Rs.	Rs.
Karnal Farm . . . . .	6,991	..
Bangalore Farm . . . . .	1,000	..
Wellington Farm . . . . .	..	35,376
Anand Creamery . . . . .	8,698	..
Total . . . . .	16,689	35,376

The following reports on the working of the farms and creamery give further details of the financial position of each of these institutions:—

### IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING WELLINGTON.

#### SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS FOR THE YEAR 1930-31.

172. The financial result of the working of this institute for the year on the commercial side shows a net loss of Rs. 35,376 against a loss of Rs. 14,700 during 1929-30, and Rs. 19,150 during 1928-29. The comparative increase in the loss during this year is chiefly due to the after effects of Foot and Mouth disease, and the outbreak of Rinderpest on the Farm, which alone were res-

possible to the extent of Rs. 23,543 by casualties, condemnations and depreciation of live stock as shown below :—

	1930-31.	1929-30.	1928-29.
Casualties . . . . .	16,345	2,326	10,485
Condemnations . . . . .	3,465	6,315	3,449
Depreciation due to Revaluation . . . . .	5,396	5,320	4,715
	25,206	13,961	18,649
Less Appreciation . . . . .	1,663	4,830	3,365
	23,543	9,131	15,284

During the year under review, the Farm lost 11 of its valuable animals, *viz.*, 6 Ayrshire Cows from the after effects of Foot and Mouth disease, 3 Ayrshire Cows, 1 Ayrshire Bull and 1 Half Bred Cow from Rinderpest.

The after effects of Foot and Mouth disease was responsible for not only the depreciation and death of cattle, but also for an outbreak of abortions.

13 Cows having aborted during the year, resulted in a loss of 260 lbs. of milk daily during the season, when it was most needed, as each one of them would have given not less than 20 lbs. per diem. This necessitated the purchase of milk from outside sources to meet demands, and also for the increased loss owing to these animals having to be fed, although producing no milk.

173. Increased expenditure under the following heads have also added to the loss in the working of the Farm :—

(a) *Repairs to Buildings Rs. 2,605.*—On account of special repairs carried out to the old cattle sheds, and extra expenditure incurred on repairs to roofs, etc., of other buildings blown off by storms.

(b) *Feed of Dairy Cattle Rs. 1,749.*—Owing to the deficiency of Farm Crops on account of failure of monsoon, necessitating increased purchase of fodder.

(c) *Fuel, Light, Water, Miscellaneous Stores and Medicines Rs. 4,627.*—Due to payment of arrears of water charges from 1925-26 to date amounting to Rs. 2,873, extra fuel required for pasteurisation of milk, and an increase in cost of medicines due to diseases amongst the cattle including Rinderpest.

174. The loss on the working of this Farm has been calculated only after charging 20 per cent. of the expenditure on the Feed and Keep, etc., to Education and Research, and without taking into consideration the following charges :—

	Total.	%	Educa- tion and Research.	%	Commercial activities.
	Rs.				
Leave and Pension charges.	1,428	20	286	80	1,142
Share of Direction charges . . . . .	900	50	450	50	450
Audit fees . . . . .	1,200	20	240	80	960
Interest charges . . . . .	8,616	50	4,308	50	4,308
	12,144		5,284		6,860



These charges have however been included in working out the all-in-cost of Dairy Products, and in the following table, the all-in-costs are compared with the selling prices :—

	1930-31.						1929-30.						1928-29.						
	All-in-cost			Average			All-in-cost			Average			All-in-cost			Average			
	per lb.			selling			per lb.			selling			per lb.			selling			
				price.						price.						price.			
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Milk	..	0	7	4.4	0	3	1.7	0	5	10.9	0	3	1.6	0	5	9.5	0	3	2.5
Butter	..	1	1	7.5	1	7	3.2	1	2	9.1	1	7	10.4	1	4	6	1	8	2.2
Cream	..	4	10	6.5	1	12	0	3	10	1.6	1	12	0	3	15	2.4	1	12	0

The increase in the cost of production of Milk and Cream is due to greater loss under casualties and condemnations of cattle and the increased expenditure under Grain and Fodder, Repairs to Buildings, Fuel, Light, Water and Miscellaneous Stores, etc., as detailed below :—

175. The following Herd and Milk Statistics are of interest :—

	1930-31.	1929-30.	1928-29.
Closing Stock of milking herd on 31st March.	87	72	64
Total herd expressed in terms of the unit of one cow per one day.	27,134	25,371	22,799
No. of Cows milked during the period ..	17,208	17,441	17,115
Yield of milk in pounds during the period	1,98,678	1,87,266	2,15,710
Average yield per cow per day .. ..	11.5	10.74	12.6
Percentage of animals dry to the total herd.	37%	31%	25%
Quantity of milk available for sale ..	2,55,886—12	2,46,170—6	2,48,145—6
Quantity of milk sold .. ..	2,48,063—12	2,39,865—6	2,34,230—6
Issued to Cream and Butter .. ..	6,804	6,273	13,653

The variations in the milking herd were as follows :—

	Cows.						
Sale of cattle .. ..	..	..	..	..	..	..	5
Deaths .. ..	..	..	..	..	..	..	14
Total .. ..	..	..	..	..	..	..	19

Total vacancies filled up were :—

	Cows.						
By Purchase.. ..	..	..	..	..	..	..	16
By Transfer from other farms .. ..	..	..	..	..	..	..	8
	..	..	..	..	..	..	24
The number of young stock transferred to Adult Stock during the year was .. ..	..	..	..	..	..	..	10



176. The main items of income for the year are compared below with those for the two previous years :—

	1930-31.		1929-30.		1928-29.	
	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
Sale of Milk ..	2,48,064	48,211	2,39,865	46,525	2,34,230	46,971
Sale of Butter ..	19,329	28,109	19,236	28,271	19,179	28,986
Sale of Cream ..	434	760	619	1,084	785	1,374
Sale of Cheese ..	72	126	85	146	75	131
Sale of Butter Milk	117	2	2,613	41	1,314	33
Sale of Separated Milk	146	9	101	6	36	2
<hr/>						
Total ..		77,217		76,073		77,497
Miscellaneous Income ..		3,863		5,743		4,319
<hr/>						
Grand Total .. ..		81,080		81,816		81,816
<hr/>						

The sale of milk will be found to show an improvement while Butter remained steady.

The decrease in the Miscellaneous income during the year as compared with the previous year amounting to Rs. 1,880 was due to failure of monsoon, resulting in a deficiency of over fifty-one per cent. in the yield of Potatoes.

177. *Balance Sheet. (Property and Assets.)*

	Rs.	
<i>Lands</i> .. ..	10,919	No additions.
<i>Buildings</i> .. ..	87,637	The addition during the year was a Record Room to the Office of the Institute at a cost of Rs. 800.
<i>Plant and Machinery</i> ..	13,305	The additions during the year under this head amounting to Rs. 3,447 represent the purchase of a New Motor Lorry in replacement of the old one, a Champion Churn and a Military wauke Filler and Capper.

Depreciation has been written off on Buildings and Plant and Machinery at rates approved by Government.

<i>Live Stock</i>	Rs.	40,005	The Live Stock was verified and valued by the Director of Agricultural Research Institute, Pusa, on the 13th February 1931 and his valuation has been adopted.
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*(Capital and Liabilities).*

*Government Capital Account Rs. 2,27,995-14-7.*—The net amount of Capital invested by Government in this concern amounts to Rs. 1,77,288 (rounded off to the nearest rupee) on 31st March 1931 after adjusting the deficiency during the year amounting to Rs. 50,708-2-7.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

178. The total loss on the working of the farm during the year amounted to Rs. 50,708 as against Rs. 28,050 in the previous year. The loss on the commercial side was Rs. 42,236 the largest for the last five years. It is explained that the loss is due to the combined effect of a variety of causes. Death of cattle was responsible for a substantial figure of Rs. 16,345. Failure of the monsoon, diseases of cattle and the havoc caused by storm were other contributory causes. The conditions which characterised the working of this year resemble to a large extent those of the year 1928-29.

179. *Reference paragraph 269 of the 1929-30 Appendix.*—The following statement will show that the prices realised during the year for adult stock were far below their values in some cases. These animals were revalued in March 1930 and sold in the months of May, June and July 1930.

Cow No.	Book value on 31st March as per valuation.				Sale Price.	Date of sale.
	Rs.				Rs.	
23 .. .. .	..	..	..	200	26	5th July 1930.
40 .. .. .	..	..	..	100	36	31st May 1930.
112.. .. .	..	..	..	100	20	28th May 1930.
329.. .. .	..	..	..	300	23	17th June 1930.
338.. .. .	..	..	..	200	52	5th July 1930.
336.. .. .	..	..	..	200	63	5th July 1930.

It was explained that the animals referred to deteriorated from unforeseen causes after the date of revaluation and had therefore to be condemned and sold.

*Imperial Institute of Animal Husbandry and Dairying, Wellington.*

## 180. Summarised Balance Sheet as at 31st March 1931.

1929-30 Rs.	Capital and Liabilities.	1930-31. Rs.	1929-30. Rs.	Property and Assets.		1930-31. Rs.
				Fixed Assets :—		
			10,919	Land at cost	.. ..	10,919
			88,059	Buildings (Depreciated Value)	.. ..	87,637
9,939	Sundry Creditors	.. ..	4,006	Plant and Machinery (Depreciated Value)	.. ..	13,305
	Government of India	.. ..	.. ..	Floating Assets :—		
1,70,867	Capital Account	.. ..	1,77,288	Live Stock at valuation	.. ..	40,005
			9,564	Plantations	.. ..	9,553
			9,247	Consumable Stores, Spare Parts, Dairy Produce, etc.	.. ..	12,268
			5,669	Sundry Debtors	.. ..	7,597
			110	Cash	.. ..	10
1,89,806		Total ..	1,81,294	1,89,806	Total	1,81,294
(Sd.) C. L. V. NAIDOO, Accountant, Imperial Institute of Animal Husbandry and Dairying, Wellington.		(Sd.) E. G. WHITTICK, Superintendent, Imperial Institute of Animal Husbandry and Dairying, Wellington.		(Sd.) A. RENGASWAMI IYER, Assistant Director of Commercial Audit, Madras Circle.		

*Imperial Institute of Animal Husbandry and Dairying, Wellington.*

**181. Summarised Trading and Profit and Loss Account for the year ending 31st March 1931.**

1930-31		1929-30.		Particulars of Receipts.		1930-31.
Total Net expenditure for the year 1929-30.	Particulars of Expenditure.	Total Net Expenditure.	Education and Research.	Commercial Activities.		
Rs.	To—	Rs.	Rs.	Rs.	By—	Rs.
31,396	Feed of Cattle, Rent of Lands and Cultivation.	33,019	6,604	26,415	Sale of Dairy Produce including Value of Closing Stock, viz., Rs. 582.	77,275
8,067	Ice, Salt, Fuel and Other Stores, Medicines, Contingencies, Postage and Refunds.	12,536	2,507	10,029	Sale of Grain and Fodder	778
180	Refunds.	101	..	101	Miscellaneous Receipts including Stud-ents fees.	3,863
1,333	Rail charges	1,597	319	1,278		2,170
22,559	Salaries of Establishment	23,050	4,610	18,440		
690	Travelling and Other Allowances of Staff and Students.	1,140	228	912		
1,624	Repairs and taxes on Buildings and Rent of Students Quarters.	426	426	..		
1,082	Repairs to Plant and Machinery	4,230	846	3,384		
1,122	Depreciation, etc., on—	180	180	..		
9,131	Buildings	559	112	447		
1,875	Cattle including Casualties and Con-demnations.	1,222	..	1,222		
33,090	Plant and Machinery including Trans-fers, Sales, etc.	23,543	..	23,543		
1,12,149	Purchase of Dairy Produce	1,786	..	1,786		
	Total	31,405	..	31,405		
		1,34,794	15,832	1,18,962		
	Overhead and Interest charges,					
1,656	Leave and Pension Contribution	1,428	286	1,142		
600	Share of Direction charges	900	450	450		
14,196	Audit Fee	1,200	240	960		
	Interest	8,616	4,308	4,308		
17,352		12,144	5,284	6,860		
	Total	1,34,794	15,832	1,18,962	Total	1,34,794

182. Store Account for the animals belonging to the Imperial Institute of Animal Husbandry and Dairying, Wellington, for 1930-31.

Rs. AS. P.

*Statement I—Balances.*

To Balance on 1st April 1930	..	..	..	..	54,594	0	0
Add Receipts. (Statement II)	..	..	..	..	10,616	8	0
					<hr/>		
					65,210	8	0
Deduct issues (Statement III)	..	..	..	..	25,205	8	0
					<hr/>		
					40,005	0	0
					<hr/>		

*Statement II—Receipts.*

By Cash purchases	..	..	..	..	6,172	8	0
By Transfers from other Farms and Departments	..	..	..	..	2,781	0	0
By increase in value through Revaluation	..	..	..	..	1,663	0	0
					<hr/>		
					10,616	8	0
					<hr/>		

*Statement III—Issues.*

To sale (Value of animals condemned and sold)	..	..	..	..	3,465	0	0
To deaths (Value of animals condemned and sold)	..	..	..	..	16,345	0	0
To decrease in value through Revaluation	..	..	..	..	5,395	8	0
					<hr/>		
					25,205	8	0
					<hr/>		

Name of the Agency employed for the  
verification and revaluation.

Sd. B. A. KEEN,

*Director,*

*Imperial Institute of Agricultural Research,  
Pusa.*

Sd. C. L. V. NAIDOO,

Accountant,

Imperial Institute of Animal Hus-  
bandry and Dairying, Wellington.

Sd. E. G. WHITTICK,

Superintendent,

Imperial Institute of Animal  
Husbandry and Dairying, Wellington.

Examined and found correct.

Sd. A. RENGASWAMI IYER,

Assistant Director of Commercial Audit, Madras Circle.

# IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, BANGALORE.

## SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS: FOR THE YEAR 1930-31.

183. The net total financial result of the working of the year under commercial activities showed a profit of Rs. 1,000 as against a loss of Rs. 12,765 in 1929-30. This improvement in the financial result was mainly due to :—

1. General fall in the prices of cattle food and the consequent decrease in the cost of feed and upkeep of cattle.
2. Better crops of dairy cultivation resulted in the reduction of the cost of feed and upkeep of cattle.
3. Greater quantity of outturn of milk and owing to greater percentage of adult stock being in milk during the year under report and the subsequent increase in the quantity of milk sold as milk.
4. Special receipt of Rs. 4,500 from the lease of cocoanut trees.
5. Increase in the quantity of outturn and sales of butter.

184. The number of animals milked daily and the average yield per animal are as follows :—

COWS:		1930-31:	1929-30.	1928-29:
		No.	No.	No.
Strength of milking herd at close of year	..	192	184	168
Number of animals milked during the year	..	45,130	39,443	36,243
		lbs.	lbs.	lbs.
Milk yield for the year	.. ..	5,54,563	5,19,774	4,90,123
Average yield per animal per day	.. ..	12.3	13.2	13.5

The drop in the percentage of milk yield is due to the Nutrition section selecting the best cows and feeding on experimental ration for the increase of milk, fats and body weight and not for milk production.

185. The quantity of milk available for sale, the quantity sold and the quantity issued for conversion are given in the table below :—

				1930-31:	1929-30:
				lbs.	lbs.
Net quantity available for sale	..	...	..	5,18,338	5,02,731
Quantity sold	..	..	..	3,87,350	3,63,276
Percentage sold to that available for sale	..	..	..	74.73%	72.26%
Issues to Cream and Butter	..	..	..	1,21,030	1,24,269
Percentage to that available for sale	..	..	..	23.25%	24.72%
Issues to cheese manufacture	..	..	..	9,300	14,615
Percentage to that available for sale	..	..	..	1.79%	2.90%

There is a small decrease in the quantity of milk converted into cream. The sale of dairy milk as such is more economical than its conversion but a



certain quantity of milk has to be converted for feeding the calves with separated milk and that surplus milk has also to be converted into cream.

186. The following are the details of the condemnations and casualties :—

					<i>Condemnation and</i>		<i>Deaths.</i>	
					<i>Sales.</i>			
					No.	Value.	No.	Value.
						Rs.		Rs.
Cows	..	..	..	..	28	8,090	5	1,670
Buffaloes	..	..	..	..	3	980	..	..
Cow Young Stock and Calves :—								
Male*	..	..	..	..	11	1,195	2	105
					19	no value	19	no value
Female	..	..	..	..	3	90	2	60
					7	no value	17	no value
Buffalo Young stock :—								
Male	..	..	..	..	1	30	1	30
					1	no value	..	..
Female	..	..	..	..	1	no value	..	..
Cow Bull	..	..	..	..	1	120	..	..
Bullocks	..	..	..	..	2	135	..	..
Horse	..	..	..	..	1	75	..	..
						10,715		1,865

The sales of cattle are due to unprofitable animals sold being cast for faults such as physical deformity, blind teats, old age, etc.

187. The increase and decrease in expenditure for the year when compared with the previous year occur under the following items :—

					Increase.	Decrease.
Feed of cattle	..	..	..	..	..	8,036
Ice, salt, etc.	..	..	..	..	..	497
Salaries of Establishment	..	..	..	..	1,326	..
Pay of Superintendent	..	..	..	..	..	129
T. A. and other allowances	..	..	..	..	656	..
Repairs to Buildings and Plant and Machinery	..	..	..	..	..	788
Depreciation on Buildings and Plant and Machinery	..	..	..	..	275	..
					2,257	..
Net decrease	..	..	..	..	7,193	..
					9,450	9,450

\*32 male calves given away in birth.

1 Bull exchanged in place of another.

The decrease under Feed and Keep of cattle is mainly due to the fall in the prices of cattle food stuffs, notably under Wheat-bran (from Rs. 5 to Rs. 3-4-0 per 100 lbs.), Groundnut-cake (from Rs. 7 to Rs. 6-5-4 per 100 lbs.) and Karai (from Rs. 5 to Rs. 3-10-0 per 100 lbs.).

The increase in the expenditure under salaries of Establishment and allowances was mainly due to the retransfer of senior incumbents to their substantive posts on this farm from their officiating appointments on other farms. The other variations in expenditure do not call for any special remarks.

188. The improvement in the outturn of cultivation which is also responsible for a decrease in the cost of feed and upkeep of cattle is indicated in the following table :—

						1929-30 outturn in lbs.	1930-31 outturn in lbs.
Guinea grass	..	..	..	..	..	10,58,310	11,77,710
Green jawari	..	..	..	..	..	14,70,870	18,35,060
Lucerne	..	..	..	..	..	81,739	51,709
Bommanpally jawari	..	..	..	..	..	1,74,600	2,32,590
Bommanpally guinea grass	..	..	..	..	..	15,730	18,275
						28,01,249	33,15,344

189. The following charges have not been taken into account in the Trading and Profit and Loss Account :—

					Total.	Education & Research.	Commercial activities.
					Rs.	Rs.	Rs.
Interest on capital	..	..	..	..	12,931	..	..
Direction charges	..	..	..	..	1,800	..	..
Audit fees	..	..	..	..	1,600	..	..
Leave and Pensionary contribution	..	..	..	..	3,918	7,853	12,396
					20,249	7,853	12,396

190. The following table gives information regarding the production cost and average sale prices, in the case of milk and its products as compiled by the Assistant Director of Commercial Audit :—

1929-30.				1930-31.			
Selling price.	Cost per lb.			Cost price.	Selling price.		
0 2 11	0 3 7-3			0 3 1-2	0 2 11		
		Farm milk including delivery charges.					
1 7 10-14	2 0 0-6	Butter including delivery charges		1 9 4-8	1 7 10-7		
1 12 0	2 13 10-5	Cream including delivery charges		2 7 0-9	1 12 0		
1 4 9-5	3 7 1-44	Cheese including delivery charges.		3 1 2-2	1 4 8-2		

The decrease in the expenditure mainly under feed and upkeep of cattle has resulted in the reduction of cost of production of milk with the consequential reduction in the cost of production of cream and cheese. The increase in the

quantity of butter manufactured was mainly responsible for the decrease of the cost of production of butter when compared with the previous year. The increase in the quantity of milk and butter sold during the year is reflected in the reduction of delivery charges.

191. The additions in buildings of Rs. 285 relate to the expenditure incurred on fencing of land. The depreciated book value of Rs. 403 for a hay shed and that for servants quarters amounting to Rs. 112 were written off during the year; the former was due to the collapse of the shed and the latter building having been dismantled.

192. The live stock was verified and valued on 7th February 1931 by the Director of Imperial Institute of Agricultural Research, Pusa.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

193. *Reference paragraph 268 of the Appendix to the Appropriation Accounts of the Central Government (Civil) for the year 1929-30.*—The principle enunciated therein has been accepted by the Departmental authorities and in the accounts under review the receipts and expenditure have been allocated to the respective activities on the basis of the actual purpose which they serve.

194. *Reference paragraph 269 of the Appendix referred to above.*—The following statement will show that the prices realised during the year for adult stock were far below their book values in some cases. These animals were revalued in March 1930 and auctioned in June 1930 :—

Cow No.	Book value before valuation.	Value as per revaluation.	Sale Price.
	Rs.	Rs.	Rs.
29 . . . . .	275	200	60
43 . . . . .	250	250	16
55 . . . . .	250	150	77
63 . . . . .	350	300	25
74 . . . . .	350	300	90
97 . . . . .	300	300	70
158 . . . . .	350	350	70
Total	2,125	1,850	408

It was explained however that the animals referred to deteriorated from unforeseen causes after the date of revaluation and had therefore to be condemned and sold.

195. *Paragraphs 183 and 184 of the Financial Review.*—There has been an improvement in the financial result of the combined activities, the loss being Rs. 56,859 as against Rs. 80,453 in 1929-30 and Rs. 68,194 in 1928-29, inclusive of the Indirect charges not included in the Trading and Profit and Loss Account. The reasons for the improvement have been stated in the Superintendent's review.

There has been a decrease in the percentage of dry animals both under cows and buffaloes during the year when compared with the previous year, but the fact that the average milk yield per animal per day shows a steady reduction is brought to notice.

# IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, BANGALORE.

196. Summarised Balance Sheet as at 31st March 1931.

1929-30.	Capital and Liabilities.	1930-31.	1929-30.	1930-31.			
Rs.		Rs.	Rs.	Property and Assets. Total.	Education and Research.	Commercial Activities.	
				<i>Fixed Assets.</i>			
14,493	Sundry Creditors .	13,272	22,953	Land at Cost .	22,953	..	22,953
			1,61,620	Buildings (depreciated value).	1,54,209	65,180	89,029
2,17,669	Government of India Capital.	3,09,428	35,166	Plant and Machinery (depreciated value).	36,813	20,350	16,463
				<i>Floating Assets.</i>			
			86,775	Livestock at valuation.	82,019	15,999	66,020
			17,232	Consumable Stores, Spare parts, and dairy produce.	18,455	..	18,455
				<i>Sundry Debtors.</i>			
			6,023	Considered Good .	5,423	23	5,400
			..	Security Deposits Investments.	2,480	..	2,480
			2,393	Cash . . .	348	..	348
3,32,162	Total .	3,22,700	3,32,162	Total .	3,22,700	1,01,552	2,21,148

Sd. S. COX,  
Superintendent,  
Imperial Institute  
of Animal Husbandry  
and Dairying,  
Bangalore.

Sd. A. D. MANICKAVELU,  
Accountant,  
Imperial Institute of  
Animal Husbandry and  
Dairying, Bangalore.

Sd. A. RENGASWAMI IYER,  
Assistant Director  
of Commercial Audit,

**IMPERIAL INSTITUTE OF ANIMAL HUSBANDRY AND DAIRYING, BANGALORE.**  
**197. Summarised Trading and Profit and Loss Account for the year ended 31st March 1931.**

1930-30.	Particulars of Expenditure.	Analysis.		1929-30.	Particulars of Receipts.	Net Receipts and Acti- 1930-31.		Analysis.	
		Rs.	Rs.			Rs.	Rs.	Rs.	Rs.
1,412	To Opening Stock of Dairy Produce	1,080	212	1,028	By Sales of Dairy Produce	1,13,291	400	1,13,291	1,13,291
24,848	To Purchase of Dairy produce including freight.	30,111		29,899	By Sale of Grain and Fodder	80		80	320
77,053	To Feed of Cattle, Rent of Land and cultivation, Ice, Salt, Acid Fuel, light, water, contingencies and miscellaneous charges.	68,302	13,650	54,642	By Miscellaneous Receipts	8,114		8,114	8,114
9,129	To Pay of Officers	9,000	5,544	3,456	By Fees from Students	2,478		2,478	2,478
26,837	To Pay of Establishment	28,164	11,266	16,898	By Sale proceeds of Dairy Cattle	2,867		2,867	2,294
2,377	To Travelling allowance and allowances	3,034	1,028	2,006	By Sale proceeds of Draught Cattle	113		113	113
2,689	To Rent and repairs to Buildings	2,151	880	1,291	By Sale of machinery	10,585		10,585	8,504
3,086	To Repairs to Plant and Machinery	2,736	1,642	1,094	By Appreciation of Cattle	1,407		1,407	1,407
7,247	To Depreciation on—				By Closing stock of Dairy produce	37,610		37,610	37,610
3,670	Buildings	7,181	2,132	5,049	By Net cost of Education and Research				
3,670	Plant and Machinery	4,010	2,640	1,370	Loss on Commercial activities				
19,437	Cattle including casualties, condemnations, sales, etc.	19,566	3,823	15,743					
48	To Bad Debts written off	15	15						
278	To Book value of Plant and Machinery sold, Buildings dismantled and written off.	515		515					
	To Net Profit on Commercial activities	1,000		1,000					
1,78,011	Total	1,76,865	42,822	1,34,043	Total	1,76,865	42,822	1,34,043	

*Details of Indirect charges not included in the above accounts.*

1929-30.		1930-31.	
Rs.	Rs.	Rs.	Rs.
1,000	Audit fees	1,600	320
1,800	Direction charges	1,800	380
3,893	Leave and pension contribution.	3,918	1,917
23,291	Interest on Capital	12,931	5,172
29,984	Total	20,249	7,853
			12,986

198. Stores account for the animals belonging to the Imperial Institute of Animal Husbandry and Dairying, Bangalore, for 1930-31.

*Statement I.—Balances.*

	Rs.
Balance on 1st April 1930 . . . . .	86,775
Receipts (Statement II) . . . . .	14,930
	<hr/>
Total . . . . .	1,01,705
Issues (Statement III) . . . . .	19,686
	<hr/>
Balance on 31st March 1931 . . . . .	82,019
	<hr/>

*Statement II.—Receipts.*

To cash purchase . . . . .	4,225
To Exchange for an animal originally sold . . . . .	120
To Increase in value through revaluation . . . . .	10,585
	<hr/>
Total . . . . .	14,930
	<hr/>

*Statement III.—Issues.*

By sales (Including one sold in exchange, vide Statement II).	10,715
By Deaths . . . . .	1,865
By decrease in value through revaluation . . . . .	7,106
	<hr/>
Total . . . . .	19,686
	<hr/>

Name of Agency employed for verification and revaluation.	The Director, Imperial Institute of Agricultural Research, Pusa.
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(Sd.) A. D. MANICKAVELU,  
Accountant.

(Sd.) S. COX,  
Superintendent,  
Imperial Institute of Animal  
Husbandry and Dairying,  
Bangalore.

Examined and found correct.

(Sd.) A. RENGASWAMI IYER,  
Assistant Director of Commercial Audit,

Madras.



## IMPERIAL CATTLE BREEDING FARM, KARNAL.

## SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS FOR THE YEAR 1930-31.

199. The accounts maintained at this Farm are not entirely in a commercial form and the Government system of accounting which was in force prior to the taking over of the farm by the Civil Department continues to exist with a few modification by the Civil Department. The figures appearing in the books of the farm have been duly reconciled with those appearing in the books of the Pay and Accounts Officer, Survey of India, Calcutta.

200. The activities of the farm are two-fold, *viz.*, (1) Cattle Breeding and Dairying and (2) Cultivation. All activities relating to Cattle Breeding and Dairying are "Educational and Research", while those relating to Cultivation are wholly "Commercial". In the compilation of the accounts of the two activities actual expenses have been shown under the corresponding heads of activities, and other expenses which cannot be directly allocated have been distributed generally in the proportion of "Feed" charges of the two branches.

201. The gross and net profits relating to the Commercial side (Cultivation) for the year 1930-31 compared with those for 1929-30 are shown below :—

	1930-31.	1929-30.	Percentage of Decrease.
	Rs.	Rs.	Rs.
Gross Profit . . . . .	30,951	65,220	53
Net Profit . . . . .	6,991	42,460	84

The substantial decrease both under gross and net profits in 1930-31 as compared with the figures for 1929-30 is attributable to the following causes :—

(a) *Decrease in quantity produced.*—The various classes of grains received during the year 1930-31, weighed 11,000 maunds as against 17,000 maunds during 1929-30. The yield is reported to be low due mainly to the absence of timely rains and diseased wheat crop.

(b) *Fall in selling prices.*—Due to general trade depression the market price of the grain had appreciably gone down in 1930-31 as compared with the year 1929-30. For instance the selling rate of Rice (or Ziri) was Rs. 1-13-4 per maund in 1930-31, as against Rs. 3-6-3 in 1929-30.

(c) *Standing Crops.*—In consequence of (b) above, the standing crops on 31st March 1931 had to be valued at considerably below the rate prevailing in the previous year.

202. The percentage of total indirect charges on gross profit on the cultivation side for 1930-31 was 93 against 42 in 1929-30.

203. Sales of grain and fodder during 1930-31 and 1929-30 and the value of standing crops at the end of each year, were as below :—

	Rs.	Rs.
	1930-31.	1929-30.
Sales . . . . .	43,631	53,428
Value of standing crops . . . . .	16,829	47,125

The decrease under both heads as compared with previous year is explained in paragraph 201 above.

Grain and fodder produced by the cultivation side is used for feeding both draught and dairy cattle. Credit has been afforded in the Departmental Trading and Profit and Loss Account to the respective sides for the total value of feed stuffs used on the farm and the actual consumption has been charged off against the activities concerned. The credits and debits to the respective sides during the years 1930-31 and 1929-30 in connection with feed of cattle are set out in the following table :—

	1930-31.		1929-30.	
	Commer- cial.	Education and Research.	Commer- cial.	Education and Research.
<i>Credit (Receipts).</i>				
	Rs.	Rs.	Rs.	Rs.
Grain and Fodder . . . . .	69,468	..	80,473	..
Milk, etc. . . . .	..	20,771	..	16,745
Total . . . . .	69,468	20,771	80,473	16,745
<i>Debit (Consumption).</i>				
Grain and Fodder . . . . .	10,246	59,222	13,019	67,454
Milk, etc. . . . .	..	20,771	..	16,745
Total . . . . .	10,246	79,993	13,019	84,199

The ratio of the feed on the dairy side to feed on the cultivation side during 1930-31 and 1929-30 was 8:1 and 6:1. The cost of feeding under Cattle Breeding and Dairying during 1930-31 was Rs. 79,993 as against Rs. 84,199 in 1929-30. In spite of increase in the number of animals and want of grazing due to shortage of rains, there has been a decrease in the cost of feeding, due to a fall in prices of commodities fed.

204. The ratio of feed charges referred to in paragraph 200 above was approximately 11:1 during 1930-31, as against approximately 10:1 in 1929-30. The working out of this ratio is given below :—

	Cattle Breeding and Dairying.						Cultivation.
	Cows.	Young stock.	Calves.	Bulls.	Sheep and goats.	Sheep Dog.	Draught Animals.
On 31st March 1930 . . . . .	205	275	125	11	200	1	73
On 31st March 1931 . . . . .	224	261	118	10	243	..	73
Total . . . . .	429	536	243	21	443	1	146
Mean . . . . .	214	268	122	10	222	..	73
	836						73

205. The selling rates of Dairy Produce during the year 1930-31 were as follows :—

Milk . . . . .	Re. 0-1-0, 0-1-3 and 0-1-6 per lb.
Butter . . . . .	Re. 0-14-0, 1-4-0 and 1-6-0 per lb.
Cream . . . . .	Re. 1-0-0 per lb.
Ghee . . . . .	Re. 0-14-0 per lb.
Separated milk . . . . .	Re. 0-0-6 per lb.
Cheese . . . . .	Re. 1-4-0, 1-6-0 and 1-8-0 per lb.
Sterilized Milk . . . . .	Re. 0-8-0 per pint plus cost of bottle.

During the year ended 31st March, 1931, the total yield of milk from cows and buffaloes amounted to 5,13,857 lbs. Of this approximately 2,63,110 lbs. were fed to calves as their legitimate ration; partly as whole milk and partly as separated milk. The average yield per cow per day over the whole herd was 6·62 while that per buffalo was 8·62. It is realized that the sale of milk which is surplus as milk is the most profitable method of disposing of it, but repeated endeavours to find a market for the sale of milk have not met with any success. There is a very limited market for milk in Karnal and it would appear that the demand is met by the local cattle owners who sell milk as low as 28 lbs. per rupee whereas our lowest rate is 1 anna per lb. at the Dairy. About half the quantity of the total yield of milk is separated for cream making and the remainder is reserved for exigencies of Research and Education.

The ratio of milk to cream was 21 : 2 during 1930-31 as against 11 : 1 in 1929-30.

206. Sales of surplus and condemned animals during the two years, 1930-31 and 1929-30, were as follows :—

	Year ended 31st March 1931.		Year ended 31st March 1930.	
	Condemned.	Surplus.	Condemned.	Surplus.
	Rs.	Rs.	Rs.	Rs.
Book value . . . . .	11,769	1,565	7,527	2,080
Value realized . . . . .	3,608	2,733	1,559	2,607
Difference . . . . .	—8,161	+1,168	—5,968	+527

#### BALANCE SHEET.

207. *Buildings.*—The value of Buildings on 1st April, 1930, was Rs. 1,08,344. Additions during the year 1930-31 amounted to Rs. 20,172; and depreciation written off the asset account amounting to Rs. 1,254 has been credited to the asset account and charged to the Profit and Loss Account.

208. *Plant and Machinery.*—The value of Plant and Machinery at the beginning of the year was Rs. 74,705 and at the end of the year Rs. 74,840. Additions and extensions amounted to Rs. 7,082, the main items of which were :—

	Rs.
1. Extension of water supply . . . . .	3,894
2. Supply and erection of electric switchboard . . . . .	1,232
3. An electric driven cream separator . . . . .	601
4. Extension of electricity distribution system . . . . .	1,037

**209. Livestock.**—The value of Livestock on the farm on the 1st April 1930, was Rs. 83,663. Purchases during the year 1930-31 amounted to Rs. 7,934. Two bulls valued at Rs. 350, one cow valued (Rs. 100), seven young animals and 25 calves valued (Rs. 230), 28 sheep and goat valued (Rs. 241) and 3 draught animals valued at Rs. 495, died of natural causes. The following animals were destroyed :—

- 1 Cow (Rs. 310) for Distochia ;
- 1 Goat (Rs. 10) having been bitten by a rabid dog ;
- 1 Dog (Rs. 18) for Rabies ; and
- 1 Calf (Rs. — ) having been bitten by a jackal.

One buffalo valued at Rs. 250 was lost. The total loss due to casualties amounted to Rs. 2,004. Sales of condemned livestock worth Rs. 11,769 realized Rs. 3,608, resulting in a loss of Rs. 8,161, while the sales of surplus stock worth Rs. 1,565 realized Rs. 2,733, giving a profit of Rs. 1,168. The Livestock was revalued towards the end of February 1931, by the Director, Imperial Institute of Agricultural Research, Pusa, and this revaluation resulted in a net appreciation of Rs. 6,506 in respect of Dairy cattle, and a depreciation of Rs. 1,165 in respect of draught cattle.

**210. Sundry Stores.**—The details of the closing stock on 31st March 1931, relating to (a) Cattle Breeding and (b) Cultivation, were as below :—

Particulars.	Cattle Breeding.		
	and		
	Total.	Dairying.	Cultivation.
	Rs.	Rs.	Rs.
Grain and Fodder . . . . .	14,288	..	14,288
Dairy Produce . . . . .	21	21	..
Ice, salt, etc. . . . .	2,431	2,431	..
Cultivation stores . . . . .	815	..	815
Miscellaneous . . . . .	10,639	9,753	886
Total . . . . .	28,194	12,205	15,989

Minor surpluses and deficits revealed during the course of verification of stores by the Audit Assistant to the Director, Imperial Institute of Agricultural Research, Pusa, were duly brought to account during the year 1931-32. The book values of stores as certified by the Farm Superintendent, have been incorporated in the accounts.

**211. Standing Crops.**—The standing crops on 31st March were valued according to the selling rate after it was actually known in May and June 1931. The cost of production was higher than the market rates.

**212. Sundry debtors.**—The balance outstanding against a certain Company on 31st March 1930, was Rs. 716-7-0. During the year 1930-31, Rs. 120 were paid towards the liquidation of this debt, leaving a balance of Rs. 596-7-0 on 31st March 1931, which is still due by that Company. The recovery of this balance is doubtful, and a reserve has, therefore, been provided against this debt in the accounts for 1930-31. The rest of the debtors are considered good, except a sum of Rs. 11 which was written off in August 1931.

**213. Government Capital Account.**—This account is built up as follows :—

	Rs.
(a) Balance on 1st April 1930 . . . . .	5,85,597
(b) Cash and Book Transfer receipts, from Government and credit adjustments during 1930-31 . . . . .	1,62,763
	<hr/> 7,48,360
Less :—	
(c) Cash and Book transfer remittances to Government and debit adjustments during 1930-31 . . . . .	77,825
Balance on 31st March 1931 . . . . .	<hr/> 6,70,535

The amount of Capital invested in the concern has risen by Rs. 84,938. This increased capital has been employed in increasing the value of buildings and roads by Rs. 23,162, Purchase of Plant and Machinery by Rs. 7,082 and Live-stock by Rs. 7,934 and in financing the deficit in the working of the farm including Education and Research.

#### SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

**214. Paragraph 201 (a) of the financial review.**—As in the year 1929-30 (*vide* paragraph 292 of the 1929-30 Appendix) the outturn of grain under the “Batai” system during 1930-31 was less than under “Home” cultivation. The outturn under “Home” cultivation during 1930-31 was also less than that obtained during 1929-30. In this connection the Director, Imperial Institute of Agricultural Research, Pusa, in his letter of 5th December 1931 stated as follows :—

“The question regarding the low outturn of grains under the “Batai” system of cultivation was gone into in connection with the audit report on the Karnal Farm for the year ended 31st March 1930 and it has shown to be due to the fact that the cultivator under the “Batai” system has less manure at his disposal and has less facility for cultivation as compared with the home farm. It is the policy of the farm to increase the home cultivation as the herd increases and more manure is available. The matter will however be gone into again on the officiating Imperial Dairy Expert's next visit to the Farm and if the present conditions permit of doing away with the “Batai” system, the lands now on “Batai” will be taken under home cultivation.”

**215. Paragraph 207 of the financial review.**—The expenditure on “land fencing” amounting to Rs. 3,434 (included under additions during 1930-31) was incurred without obtaining administrative sanction.

The heavy rush of expenditure on Buildings towards the close of the financial year was pointed out in audit and the Director, Imperial Institute of Agricultural Research explained that this case was exceptional as the execution of certain works was held over until the return from leave in November 1930 of Mr. Smith the Imperial Dairy Expert.

**216. Paragraph 208 of the financial review.**—The expenditure on the extension of water supply Rs. 3,894 (item 1) was made without administrative approval. The Imperial Dairy Expert has since been asked to see that in future no work is taken in hand before the relative plans and estimates are sanctioned by competent authority.



217. *Paragraph 209 of the financial review.*—The Imperial Dairy Expert has since reported that there is nothing abnormal in the loss on livestock owing to the fact that it was due to the casting of inefficient cattle. As the loss has exceeded the powers of the Imperial Dairy Expert the case is being referred to Government for sanction to write it off.

218. Summary of working results of three years 1928-29, 1929-30 and 1930-31 of the Imperial Cattle Breeding Farm Karnal.

	1930-31.			1929-30.			1928-29.		
	Education and Research.	Cultivation and Commercial.	Combined effect.	Education and Research.	Cultivation and Commercial.	Combined effect.	Education and Research.	Cultivation and Commercial.	Combined effect.
Total Sales		Ra. 22,388	43,631	66,019	20,074	53,428	73,502	14,113	44,572
Profit or Loss (—)									
Gross Cost of Education and Research	Ra. 40,324	30,951	—0,373	46,335	65,220	18,885	36,929	77,467	40,538
Percentage of $\frac{\text{gross profit or loss}}{\text{gross cost of Education and Research}}$	180.11	70.94	14.20	230.80	122.07	25.69	261.66	173.80	69.07
Loss (—) on turnover and Research.									
Net profit or Loss (—) cost of Education and Research. (excluding indirect* charges).	Ra. 96,769	6,991	—89,778	94,791	42,460	52,331	82,127	51,402	—30,725
Net profit or Loss (—) cost of Education and Research. (including indirect* charges).	Ra. 1,21,620	—10,215	1,31,835	1,16,029	27,846	—88,183	1,60,046	38,945	—61,101*
Capital									
Net Profit or Loss (—) cost of Education and Research (excluding indirect* charges) on Capital.	14.43	1.04	13.40	16.18	7.25	8.92	16.23	10.16	6.07
Percentage of Net Profit or Loss (—) cost of Education and Research (including indirect* charges) on Capital.	18.13	—1.52	19.66	19.81	4.76	15.05	19.77	7.70	12.07

\* Supervision charges, Leave and Pensionary charges, Audit fees, Interest on capital.



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IMPERIAL CATTLE BREEDING FARM, KARNAL—*contd.*

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## IMPERIAL CATTLE BREEDING FARM, KARNAL.

-219. Balance Sheet as at 31st March 1931.

Liabilities.	1930-31.		1929-30.		Assets.	1930-31.		1929-30.	
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
<i>Sundry Creditors.</i>									
For salaries, wages, etc.	3,931	3,975	..	..	Land	..	89,358	..	89,359
" Travelling allowances	225	277	..	..	Buildings	1,08,344	..	96,298	..
" Purchase of stores	2,593	7,383	..	..	Additions during the year	20,172	..	13,203	..
" Water dues	2,700	3,441	..	..		1,28,516	1,09,501		
" Sales Ledger Credit balances	23	249	..	..	Less—Depreciation written off	1,254	1,157		
		9,472	15,325	15,325	Roads	..	1,27,262	..	1,08,344
Permanent Advance	..	2,000	..	2,000	Plant and Machinery	74,705	2,990	50,553	..
Government Capital	..	6,70,535	..	5,85,598	Additions during the year	7,082	..	30,205	..
						81,787	80,758		
					Less—Depreciation written off	6,947	6,053		
					Livestock	..	74,840	74,705	..
					Milk Cans	..	81,600	83,663	..
					Add returns to stores	1,637	5,659		
						112			
					Less—Issues	1,749	5,659		
					Less—Depreciation written off	7	—337		
							—3,885		
					Sundry Stores	..	1,742	1,637	..
					Standing Crops	..	28,194	28,022	..
					Sundry Debtors	..	16,828	47,125	..
					Less—Reserve for bad and doubtful debts	9,065	8,882		
						596	8,469		8,882

Cash in hand	43	232
Balance of Imprest	1,536	716
Add unrecovered expenditure	241	1,284
Add unrecovered advances	223	..
Profit and Loss Account—	2,000	2,000
Net accumulated deficiency to 31st March 1929 and 31st March 1930	1,58,904	1,06,573
Cost of Education and Research	96,768	94,791
Deduct—Profit on Commercial	—6,991	—42,460
Total	6,82,007	1,58,904
	6,02,923	6,02,923

(Sd.) S. C. SEN,  
Assistant Audit Officer,  
Commercial Audit Branch.

(Sd.) ANUP CHAND,  
Accountant,  
Imperial Cattle Breeding Farm, Karnal.

(Sd.) A. LAMB,  
Superintendent,  
Imperial Cattle Breeding Farm, Karnal.

## IMPERIAL CATTLE BREED

## 220. Comparative Departmental Trading and Profit and Loss Account for

	For the year ended 31st March 1931.		For the year ended 31st March 1930.	
	Cattle Breeding and Dairying. Education and Research.	Cultivation. Commercial.	Cattle Breeding and Dairying. Education and Research.	Cultivation. Commercial.
	Rs.	Rs.	Rs.	Rs.
To Commencing Stock . . . . .	14,200	13,822	11,939	10,627
„ Value of Standing crops on 1st April. . . . .	..	47,126	..	50,333
„ Purchases of—				
Grain and Fodder . . . . .	..	26,267	..	37,564
Ice, Salt, etc. . . . .	1,495	..	1,216	..
„ Cultivation charges . . . . .	..	17,506	..	18,086
„ Feed and upkeep of cattle . . . . .	79,993	10,246	84,199	13,019
	95,688	1,14,967	97,354	1,29,629
„ Gross Profit C/d . . . . .	..	30,951	..	65,220
	95,688	1,45,918	97,354	1,94,849
„ Cost of Education and Research B/d . . . . .	40,324	..	46,335	..
„ Salaries and Wages . . . . .	25,320	21,800	20,576	21,231
„ Repairs to Buildings . . . . .	2,563	528	4,081	510
„ Repairs to Plant and Machinery . . . . .	3,703	890	3,400	567
„ Plant and machinery written off . . . . .	..	..	547	451
„ Heating and Lighting . . . . .	7,881	716	7,784	779
„ Medical Stores . . . . .	826	75	1,551	155
„ Travelling Allowances . . . . .	2,971	449	1,603	261
„ Freight . . . . .	1,018	..	665	..
„ Sundry Expenses . . . . .	3,220	1,932	1,351	1,081
„ Casualties of Livestock . . . . .	1,509	495	2,340	50
„ Condemnation of Livestock . . . . .	8,060	102	5,939	30
„ Value of milk cans issued . . . . .	7	..	337	..
„ Reserve for bad and doubtful debts . . . . .	597	..	..	..
„ Depreciation on Buildings . . . . .	1,059	195	1,028	129
„ Depreciation on Plant and Machinery . . . . .	5,287	1,661	4,333	722
„ Depreciation on Milk cans . . . . .	..	..	3,684	..
„ Depreciation on Livestock during the year . . . . .	..	..	..	1,799
	1,04,345	28,843	1,05,554	27,765
Net Profit on Commercial . . . . .	..	6,991	..	42,460
	1,04,345	35,834	1,05,554	70,225
<i>Indirect charges not included in the Accounts are :—</i>				
Supervision charges . . . . .	900	..	900	..
Leave and Pensionary charges . . . . .	2,206	2,276	2,342	2,417
Audit fees . . . . .	1,300	1,300	600	600
Interest on Capital . . . . .	20,445	13,630	17,396	11,597
	24,851	17,206	21,238	14,614

## ING FARM, KARNAL.

the year ended 31st March 1931..

	For the year ended 31st March 1931.		For the year ended 31st March 1930.	
	Cattle Breeding and Dairying. Education and Research.	Cultivation.     Commercial.	Cattle Breeding and Dairying. Education and Research.	Cultivation.     Commercial.
	Rs.	Rs.	Rs.	Rs.
By Sales . . . . .	22,388	43,631	20,074	53,428
„ Issues for feed and upkeep of cattle..	20,771	69,469	16,745	80,473
„ Ending Stocks . . . . .	12,205	15,989	14,200	13,823
„ Value of Standing crops on 31st March . . . . .	..	16,829	..	47,125
	55,364	1,45,918	51,019	1,94,849
„ Cost of Education and Research C/d. . . . .	40,324	..	46,335	..
	95,688	1,45,918	97,354	1,94,849
By Gross profit on Cultivation B/d..	..	30,951	..	65,220
„ Miscellaneous Receipts . . . . .	955	4,883	2,563	5,005
„ Profit on sale of young stock . . . .	1,168	..	527	..
„ Value of cans returned to stores . . .	112	..	..	..
„ Net appreciation in Livestock dur- ring the year . . . . .	5,341	..	7,673	..
	7,576	..	10,763	70,225
By net cost of Education and Research during the year . . . . .	96,769	..	94,781	..
	1,04,345	35,834	1,05,554	70,225

## IMPERIAL CATTLE BREED

## 221. Comparative Trading and Profit and Loss Account for the year

	Year ended 31st March 1931. Rs.	Year ended 31st March 1930. Rs.
To Commencing Stock	28,022	22,566
„ Value of standing crops on 1st April	47,125	50,333
„ Purchases of—		
Grain and Fodder	26,267	37,564
Ice, Salt, etc.	1,495	1,216
„ Cultivation charges	17,506	18,086
„ Value of Produce issued for feed and upkeep of cattle	90,240	97,218
„ Gross Profit carried down	..	18,885
	2,10,655	2,45,868
To Gross Loss brought down	9,373	..
„ Salaries, Wages, etc.	47,120	41,807
„ Repairs to Buildings	3,091	4,591
„ „ „ Plant and Machinery	4,593	3,967
„ Heating and Lighting	8,597	8,563
„ Medical Stores	901	1,706
„ Travelling Allowances	3,420	1,864
„ Freight on Stores	1,018	665
„ Plant and Machinery written off	..	997
„ Sundry Expenses	5,152	2,422
„ Casualties of Livestock	2,004	2,390
„ Condemnation of Livestock	8,162	5,969
„ Value of Milk cans issued to Dairy	7	338
„ Reserve for bad and doubtful debts	596	..
„ Depreciation on Buildings	1,255	1,157
„ „ Plant and Machinery	6,947	5,055
„ „ Milk cans	..	3,684
Total	1,02,236	85,185
<i>Indirect charges not included in the Accounts are :—</i>		
Supervision charges	900	900
Leave and Pensionary charges	4,482	4,759
Audit Fees	2,600	1,200
Interest on Capital	34,075	28,993
Total	42,057	35,852



## ING FARM, KARNAL.

ended 31st March 1931.

	Year ended 31st March 1931. Rs.	Year ended 31st March 1930. Rs.
By Sales of—		
Grain and Fodder . . . . .	38,566	49,793
Dairy Produce . . . . .	22,329	20,015
Skins . . . . .	62	60
„ Value of Produce issued for feed and upkeep of cattle . . . . .	90,240	97,218
„ Rent of land leased for cultivation . . . . .	5,062	3,635
„ Ending Stocks . . . . .	28,194	28,022
„ Value of standing crops on 31st March . . . . .	16,829	47,125
„ Gross Loss carried down . . . . .	9,373	..
	<u>2,10,655</u>	<u>2,45,868</u>
By Gross Profit brought down . . . . .	..	18,885
„ Miscellaneous Receipts . . . . .	5,838	7,568
„ Profit on Sale of Young Stock . . . . .	1,168	527
„ Value of Cans returned to Store from Dairy . . . . .	112	..
„ Net appreciation of Livestock during the year . . . . .	5,341	5,874
„ Net balance for the year carried to Balance sheet—		
Cost of Education and Research . . . . .	96,768	..
Less Net Profit on Commercial . . . . .	6,991	52,331
	<u>89,777</u>	<u>52,331</u>
Total . . . . .	<u>1,02,236</u>	<u>85,185</u>

# SUMMARY OF STORE ACCOUNT OF THE ANIMALS BELONGING TO THE IMPERIAL CATTLE BREEDING FARM, KARNAL.

222. For the period 1st April 1930 to 31st March 1931.

Item No.	Particulars.	Amount. Rs.
1	Balance on 1st April 1930 as per Statement No. I . . . . .	83,663
2	Add Receipts as per Statement No. II . . . . .	17,362
3	Total . . . . .	1,01,025
4	Deduct disposed off as per Statement No. III . . . . .	19,425
5	Balance on 1st April 1931 . . . . .	81,600

## STATEMENT No. II.

6	To purchases . . . . .	7,934
7	To purchases from Government Farms (Book Transfer) . . . . .	..
8	To Increase in value through revaluation . . . . .	9,428
9	Total . . . . .	17,362

## STATEMENT No. III.

10	By Sales . . . . .	13,334
11	By deaths . . . . .	1,416
12	By decrease in value through revaluation . . . . .	4,087
13	By destruction . . . . .	338
14	By desertion . . . . .	250
	Total . . . . .	19,425

Name of Agency employed for the Verification and revaluation :—

Director, Imperial Institute of Agricultural Research, PUSA.

(Sd.) F. E. TRAYNOR,

Superintendent,

Imperial Cattle Breeding Farm,

Karnal.

(Sd.) ANUP CHAND,

Accountant,

Imperial Cattle Breeding Farm,

Karnal.

(Sd.) S. C. SEN,

Assistant Audit Officer,

Northern India Circle,

(Commercial).

## GOVERNMENT RESEARCH CREAMERY, ANAND.

SECTION I.—FINANCIAL REVIEW BY THE SUPERINTENDENT ON THE ACCOUNTS  
FOR THE YEAR 1930-31.

223. The Creamery continued to be a training centre for imparting Dairy Education as well as carrying out Research work in the different problems connected with milk and its products and the manufacture of butter, casein and ghee, etc., on commercial lines. The working of the Creamery during the year under review resulted in a profit of Rs. 8,698-8-5 on its commercial activities.

The following experiments were made during the year :—

1. Effect of pasteurisation on melting point of butter. Samples of butter made from both pasteurised and unpasteurised cream kept for periods from 1 to 7 days before churning were tested and the age of cream made no difference in the melting point of butter.
2. Percentages of casein in butter made from pasteurised and unpasteurised cream were compared. Experiments conducted showed no appreciable difference in the percentage of casein.
3. Effect of the presence of percentage of casein in butter on the quality and yield of ghee.
4. Homogenising of milk before despatch to improve the keeping qualities and prevent the churning of milk while in transit on long railway journeys in non-refrigerating vans in India.

A Homogenising plant was installed at the Creamery during the year under review and experiments were carried out for supply and transport of homogenised milk to the city of Bombay in co-operation with the Executive Health Commissioner, Bombay. This proved of special interest to the dealers in Bombay on account of the great demand for pure milk in Bombay.

## TRAINING.

224. During the year under review 24 Indian Dairy Diploma students and 5 Post-graduate students were given training at this Institute. They were trained in the different lines of work at the Creamery and they helped a great deal in carrying out the experiments enumerated above. Four Short Course students were also trained during the year.

## EXHIBITIONS.

225. The Creamery participated at the exhibition held at Udaipur State at the request of that State by sending its products for educational and exhibitional purposes.

## GENERAL.

226. During the year the Creamery also faced the general depression in trade and consequently the results were not favourable which would otherwise have been the case.

227. A comparative statement of the sales of Dairy Products is given below :—

	1929-30.		1930-31.	
	Lbs.	Ozs.	Lbs.	Ozs.
Butter . . . . .	80,340	12	70,368	4
Separated milk . . . . .	4,45,625	0	1,77,596	0
Ghee . . . . .	6,476	2	2,757	12
Casein . . . . .	13,915	4	27,348	0
Cream . . . . .	44	7	29	2
Cheese . . . . .	38	12	69	0
Milk . . . . .	360	0	..	
Butter " C " . . . . .	55	0	..	
Butter Milk . . . . .	..		3,985	0

(a) *Butter*.—The output of butter was 73,120-10 pounds. Out of the total sales of 70,368-4 lbs. during the year 35,239 lbs. were sold to the Military Dairies and the rest to the public. The production cost of butter during the year inclusive of all charges worked out to Rs. 1-0-0-6 as against Rs. 1-0-5-9 for the preceding year.

(b) *Ghee*.—3,155-4 lbs. of butter and 3,783 pounds of milk were issued for conversion into ghee yielding 2,616-12 pounds of ghee working out an average of  $78\frac{1}{2}$  lbs. of ghee from 100 pounds of butter. The production cost of ghee was Re. 0-14-9 as against Rs. 1-1-1-7 per pound in the preceding year.

(c) *Separated Milk*.—The outturn of separated milk during the year was 9,50,781 pounds. Of this 7,67,279 pounds were issued for casein manufacture and yielded 24,802 pounds of casein or an average 30-93 pounds of separated milk went to make a pound of casein.

(d) *Casein*.—27,348 pounds of casein sold during the year realized Rs. 1,585-1-0 or an average of Rs. 2-6-0-2 per every 41 lbs. of casein as against Rs. 9-0-11-3 per 41 lbs. in the preceding year. There was a considerable fall in the selling price of casein due to the abnormal conditions prevailing in the world markets.

228. The figures of Profit on trading and the cost of research and education showing the net deficiency in the working of the Creamery are set out below :—

	1929-30.			1930-31.		
	Rs.	a.	p.	Rs.	a.	p.
Cost of Research . . . . .	31,460	11	0	28,887	8	4
Net Deficiency . . . . .	16,019	0	3	20,188	15	11
Profit on Trading . . . . .	15,441	10	2	8,698	8	5

229. *Balance Sheet*.—The following additions were made to Assets :—

	Rs.	a.	p.	
Buildings . . . . .	605	2	6	Wall between Dairy and Engine Room, platform for water tank, Bund round Casein yard, platform for Casein press and shed over Casein Tank,
Plant and Machinery . . . . .	4,644	15	0	Purchase of power separator, milk tank, Gerber Tester, Milk Homogenisor and Water Tank.
Minor Equipment . . . . .	660	12	0	Wooden tub for casein making, Cover for Milk Cooler, Tables and Benches.
Total . . . . .	5,910	13	6	

## REDUCTION IN ASSETS.

	Rs.	a.	p.
Depreciation on buildings, plant and machinery and Minor Equipment . . . . .	5,388	7	0

## SALES.

Condemned water tank . . . . .	110	10	0
Two butter containers sold at book value . . . . .	88	11	0
Total reduction in Assets . . . . .	5,587	12	0

230. *Stores and Stocks*.—Rs. 5,687-0-8. This represents an increase of Rs. 750 over the balance on 1st April 1930, which is due to two coal wagons received towards the close of the year.

Verification of stock was carried out by the Audit Assistant of the Director, Imperial Institute of Agricultural Research, Pusa.

Details of stock balance valued at market rates on 31st March 1931 are given below :—

Item.	Balance.	Rate.	Amount.
	Lbs.		Rs. a. p.
Butter . . . . .	756 2	@ Re. 0-15-0 per pound .	708 13 10
Ghee . . . . .	71 8	@ Re. 1 per pound . . .	71 8 0
Casein . . . . .	2,278 0	@ Rs. 2 per 41 pound . .	111 2 0
Cream . . . . .	216 0	@ Re. 0-12-0 per pound	162 0 0
Total . . . . .			1,053 7 10

231. *Sundry debtors*.—Rs. 5,105-5-6. These have since been cleared.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

232. The gross expenditure incurred in 1930-31 is compared below with the expenditure of the previous years :—

	Expenditure incurred in	
	1929-30.	1930-31..
	Rs..	Rs..
<i>Direct charges.</i>		
Dairy Produce . . . . .	71,719	60,869
Miscellaneous Stores and Chemicals . . . . .	4,674	4,449
Coal . . . . .	5,400	4,741
Wages . . . . .	2,618	2,717
Repairs and Depreciation on plants . . . . .	5,373	5,270
Total . . . . .	89,784	78,046
<i>Indirect charges.</i>		
Salaries and allowances . . . . .	12,180	15,419
Miscellaneous expenses . . . . .	2,842	3,980
Repairs and Depreciation on Buildings . . . . .	290	1,188
	15,312	20,587
Total . . . . .	1,05,096	98,633
Output—"A" Grade Butter . . . . .	76,758·4	73,120·10
Casein . . . . .	18,153·4	24,802
Ghee . . . . .	6,403·7	2,616·12

The marked decrease on the expenditure of *Dairy Produce* was due to smaller quantities of milk purchased, and also to the appreciable reduction in the supply rate. The increase under *salaries* was due to heavy travelling allowance claims and to changes in the Superintendents. The cost of special repairs to the Creamery Buildings account for the increase under miscellaneous expenses.

233. In working out the cost of Butter "A" grade *vide* comparative statement below, the losses on Casein and Ghee accounts have been charged to Butter-making in accordance with Government orders :—

	Cost per lb.	
	1929-30.	1930-31.
Output . . . . . lbs.	76,758	73,121
<i>Direct charges.</i>		
	Rs. a. p.	Rs. as. p.
Dairy Produce . . . . .	0 10 4·7	0 9 2·0
Stores and Chemicals . . . . .	0 0 8·2	0 0 7·5
Coal . . . . .	0 0 9·3	0 0 8·3
Wages . . . . .	0 0 3·6	0 0 3·9
Repairs, etc., to Plant . . . . .	0 0 9·0	0 0 9·4
Total . . . . .	0 12 10·8	0 11 7·1



<i>Indirect charges.</i>						Rs.	a.	p.	Rs.	a.	p.
Salaries and Allowances	.	.	.	.	.	0	1	8.3	0	2	2.6
Miscellaneous expenses	.	.	.	.	.	0	0	5.4	0	0	9.0
						0	2	1.7	0	2	11.6
<b>Total</b>						0	15	0.5	0	14	6.7
Loss on Casein	.	.	.	.	.	0	1	0.7	0	1	6.4
Loss on Ghee	.	.	.	.	.	0	0	4.7	0	0	0.5
Cost of Production per lb.	.	.	.	.	.	1	0	5.9	1	0	1.6

In view of the fact that manufacturing concerns generally take credit in their production accounts in respect of receipts and adjustments arising from the disposal of bye-products it was suggested in audit that an alternative method for working out the cost of production of Butter would be to take into account the following factors :—

- Include loss on Casein but not on Ghee-making,
- Allow credits for sales and issues of separated milk, etc.
- Allow credits for Butter for Ghee-making.
- Calculate the cost of butter per lb. on the net output of butter, *i.e.*, gross output less issues for Ghee.

The cost of production of Butter worked out in this manner for the years 1930-1931 and 1929-30 would be Re. 0-14-1.3 and Re. 0-12-7.7 respectively per lb. The Director, Imperial Institute of Agricultural Research has since agreed to adopt in future the alternative method for working out the cost of production of Butter.

234. The manufacturing costs of Casein during 1930-31 and 1929-30 were as follows :—

						Cost per lb.					
						1929-30.			1930-31.		
Output	.	.	.	.	lbs.	18,153.4			24,802		
<i>Direct charges.</i>						Rs.	as.	p.	Rs.	as.	p.
Materials used	.	.	.	.	.	0	7	4.8	0	4	0.2
Labour	.	.	.	.	.	0	0	4.3	0	0	3.3
Depreciation, etc.	.	.	.	.	.	0	0	1.0	0	0	0.6
Indirect charges	.	.	.	.	.	0	0	4.2	0	0	5.9
<b>Total</b>						0	8	2.3	0	4	10.0

The main reason for the reduction in cost is that the separated milk issued for conversion into Casein was charged at 50 per cent. of selling rates in 1930-31 whereas the full charge was made in the previous year. The selling rates of Casein in the first and second half-years of 1930-31 were an average of Rs. 1-10-7.8 and Rs. 2-13-6 respectively per 41 lbs. Owing to the slump in the Casein market it was suggested by audit that the question whether this product

should continue to be manufactured ought to be considered. In connection with this point the Director, Imperial Institute of Agriculture, has since stated that it is necessary to continue the manufacture of casein for educational purposes and the fact that the separated milk for which there is no sale at present would otherwise go to waste.

235. The following is a comparison of the cost of production of Ghee :—

Output . . . . . lbs.	Cost per lb.	
	1929-30.	1930-31.
Output . . . . . lbs.	6,403·3	2,616·12
	Rs. as. p.	Rs. as. p.
Materials used . . . . .	1 0 8·8	0 12 10·9
Coal . . . . .	0 0 1·8	0 0 11·2
Labour . . . . .	..	0 0 1·2
Depreciation . . . . .	0 0 1·6	0 0 2·8
Indirect charges . . . . .	0 0 1·5	0 0 6·9
Total . . . . .	1 1 1·7	0 14 9·0
Butter used in conversion lbs. . . . .	7,995	3,155
Yield of ghee from 100 lbs. of Butter . . . . .	80	78·6

The decrease in the cost of ghee is mainly due to the reduction in the cost of the materials consumed.

236. The Government Capital account Rs. 1,39,912 against Rs. 1,70,903, at the close of the year 1929-30 is made up as follows :—

	Rs.	Rs.
Balance on 1st April 1930 . . . . .	..	1,70,903
Cheques (cash drawing during 1930-31) . . . . .	..	1,02,543
Adjustments with the Pay and Accounts Officer, Survey of India, Calcutta. . . . .	..	8,614
Payments into treasury . . . . .	53,682	..
Adjustments with the Pay and Accounts Officer, Survey of India . . . . .	42,239	..
Adjustment for loss on sale of water tanks . . . . .	58	..
Loss to end of 31st March 1930 . . . . .	46,169	..
Ending balance on 31st March 1931 . . . . .	1,39,912	..
Total . . . . .	2,82,060	2,82,060



## GOVERNMENT RESEARCH CREAMERY, ANAND.

238. Balance Sheet as at 31st March 1931.

Liabilities.	1930-31.		1929-30.		Assets.	1930-31.		1929-30.	
	Rs.		Rs.			Rs.		Rs.	
Sundry creditors and credit balances	4,098		1,385		Land	24,000		24,000	
Government Capital Account	1,39,912		1,70,903		Buildings	28,708		28,336	
					Plant and Machinery	53,637		53,979	
					Minor Equipment	4,101		3,808	
					Stores and stock	6,741		7,158	
					Sundry Debtors	8,105		8,784	
					Cash and stamps	1,529		554	
						1930-31.		1929-30.	
						Rs.		Rs.	
					Cost of Education and Research	28,888		31,461	
					Deduct—Net profit on Commercial	8,699		15,442	
					Net loss	20,189		16,019	
					Add—loss of previous year	..		30,150	
								46,169	
Total	1,44,010		1,72,788		Total	1,44,010		1,72,788	

(Sd.) C. J. PATEL,  
Accountant,  
Government Creamery,  
Anand.

(Sd.) HARNAM SINGH,  
Offg. Superintendent,  
Government Creamery,  
Anand.

(Sd.) E. PRICE,  
Assistant Director of  
Commercial Audit.

## GOVERNMENT RESEARCH CREAMERY, ANAND.

## 239. Trading and Profit and Loss Account for the year ended 31st March 1931.

	1930-31. Rs.	1929-30. Rs.		1930-31. Rs.	1929-30. Rs.
To opening stock of butter	.	354	By sale of butter	.	.
" cost of Production	.	66,523	" sale of separated milk	.	.
" gross profit carried down	.	13,827	" sale of butter milk	.	.
			" recoveries of charges for butter making, etc.	.	.
			" issues for ghee making	.	.
			" issue of separated milk for casein making	.	.
			" Loss in packing	.	.
			" Issues to experiment	.	.
			" closing stock of butter	.	.
	80,709	1,01,785	Total	80,709	1,01,785
To gross loss on casein	.	7,008	By gross profit on butter b/d	.	.
" gross loss on ghee	.	.	" gross profit on cheese	.	.
" gross loss on cheese	.	.	" gross profit on ghee	.	.
" gross profit carried down	.	7,450	" recoveries of packing	.	.
Total	14,458	20,766		14,458	20,766

GOVERNMENT RESEARCH CREAMERY, ANAND—*contd.*239. Trading and Profit and Loss Account for the year ended 31st March 1931—*contd.*

	1930-31.		1929-30.		1930-31.		1929-30.	
	Rs.	Com- search. mer- cial.	Rs.	Re- search. mer- cial.	Rs.	Com- search. mer- cial.	Rs.	Re- search. mer- cial.
To expenditure on Research	20,500	..	31,521	..	..	..	..	..
„ depreciation on Milk condensers	570	..	570	..	..	..	..	..
„ net profit on Commercial carried down.	..	8,699	..	15,441	..	28,887	..	31,461
Total	30,160	8,699	32,091	15,441	Total	30,160	8,699	32,091
To net cost of Research B/d	28,887	..	31,461	..	By Net profit on Commercial B/d	8,699	..	15,441
Total	28,887	..	31,461	..	„ deficiency carried to Balance sheet	20,188	..	16,020
The following charges have been excluded :—				Total				31,461
Leave and Pensionary charges	1,856	..	1,481	..				
Direct on charges	900	..	900	..				
Interest on Capital	7,723	..	9,504	..				
Audit charges for the year	1,000	..	1,000	..				
Total	11,479	..	12,885	..				



## GOVERNMENT RESEARCH CREAMERY, ANAND.

## 240. Statement of Stores for the year 1930-31.

Articles.	Opening stock on 1st April 1930.	Receipts during the year.	Issues during the year.	Balance on 31st March 1931.
	Rs.	Rs.	Rs.	Rs.
Consumable stores . . . .	4,287	9,522	9,580	4,228
Chemicals . . . . .	399	647	770	276
Coal . . . . .	252	5,672	4,742	1,183
Total . . . . .	4,938	15,841	15,092	5,687

## IMPERIAL INSTITUTE OF AGRICULTURAL RESEARCH, PUSA.

## SECTION 1.—FINANCIAL REVIEW BY THE DIRECTOR ON THE ACCOUNTS OF THE YEAR 1930-31.

## 241. The Institute consists of the following sections :—

- (1) The Central Office—Under the immediate supervision of the Joint Director and the Director.
- (2) The Estate Office (including the Kitchen Garden).
- (3) The Power House.
- (4) and (5) The Agricultural Section—Cultivation Experiments and the Cattle Breeding Experiments.
- (6) The Economic Botanist's Section.
- (7) The Imperial Bacteriologist's Section.
- (8) The Imperial Mycologist's Section.
- (9) The Imperial Agricultural Chemist's Section.
- (10) The Imperial Entomologist's Section.
- (11) The Hospital and Dispensary.
- (12) The Sugar Bureau (including the Sugar Cable Service). It has been transferred to Cawnpore under the Sugar Technologist, Imperial Council of Agricultural Research, from 1st April, 1931.

Every section maintains some account books and store ledgers, but the Central Office is the channel of communication with the Treasury and the Pay and Accounts Officer, and the Sections hold their imprest from and render their detailed accounts to the Central Office.

A Quasi-commercial system of accounts has been introduced with effect from 1st April, 1928, in the case of the Agricultural Section—Cultivation Experiments and the Cattle Breeding Experiments, and a similar system in the Sugar Cable Service and the Kitchen Garden. In commercializing the accounts of the Cable Service, the reservation was made that no charge should be debited for the present to this Service for the work done by the Secretary and the Superintendent of the Office of the Sugar Bureau or on account of leave and pension charges. It has been further decided that no commercial or quasi-

commercial accounts require to be introduced in the case of the other sections of the Institute, including the Estate Office, the Power House, and the Hospital. The acceptance of the principle of keeping the accounts of the Institute on a commercial basis, wherever possible, is subject to the condition that the fulfilment of the specific objects for which the Institute is established is not thereby impeded. It has been specially laid down by the Government of India that the introduction of these accounts does not necessarily imply that the concerns should be run as profit-earning or business ones as the Imperial Institute of Agricultural Research, Pusa, has been established primarily for the promotion of Research and the provision of Educational facilities. Further, as the present activities of the Farm and the Dairy at Pusa which have been brought within the scope of the commercial system of accounts are being substantially curtailed and as further schemes of Educational and Research activities are likely to materialize in the near future, the Government of India do not think it possible in the existing unsettled conditions to lay down, with any degree of accuracy, a criterion for the allocation of expenditure of the "Cultivation" and "Cattle-Breeding Experiments" between "Commercial" and "Research and Educational" activities and they therefore do not at present consider it desirable to attempt such a division. Although it has been decided not to apportion expenditure between 'Commercial' and 'Research and Educational' activities, the Government of India have recognized that the commercial accounts will still be of some use in indicating the possibility of improving the working of cultivation and cattle-breeding operations or of reducing the working expenses. As regards the loss in these experiments, the Government of India have agreed with the Auditor-General that throughout it should be read as meaning "Cost to Government of the Commercial, Education and Research activities in the respective branches of the Institute."

The financial results of the working of the commercialised sections are reviewed briefly in the following paragraphs giving comparative figures for the years 1929-30 and 1930-31.

### *Agricultural Section.*

242. The Agricultural Section is the largest section in the Institute and involves the highest expenditure. It consists of two main departments which deal with cultivation and cattle-breeding experiments.

#### *(a) Cultivation Experiments.*

The Farm consists of about 800 acres and experimental work connected with the cultivation of crops is conducted in an area of about 70 acres while in the land outside this area, farming on a large scale involving the use of rotation is being carried on. Green fodder is grown on a part of the land and sugarcane is also cultivated. The other chief crops are maize, oats, wheat, gram, arhar, beans, cowpeas and meth, etc. The fodder may be divided into dry bhusa, green fodder and silage. Most of the grains and fodder produced on the farm is utilized for the maintenance of working cattle and the breeding herd. Sales to outsiders have considerably increased during the year under review due to less consumption of grains and fodder by the breeding herd as their number has been reduced owing to the sale of cross-bred cows.

The financial results of the operations of the cultivation experiments on the Farm show a total loss of Rs. 78,027-7-11 including indirect charges as against Rs. 58,049 in the year 1929-30 and of Rs. 57,170-15-5 excluding the indirect charges as against Rs. 34,814 in the year 1929-30. The expenditure booked in these accounts includes the portion spent on agricultural research, experiments and training of students. As already decided by the Government of India in concurrence with the Auditor General, the loss may be taken roughly, to represent the net cost to the Government of running this Section. The increase of Rs. 19,978 in the total loss over the last year's figures, is mainly due to the low prices at which the Farm produce have been valued and also to lower crop produce on account of scanty rainfall.

243. The total expenditure in the year under review was less by Rs. 8,931 as compared with that for the year 1929-30. The increase or decrease under various items of expenditure may be explained as follows :—

- (a) *Standing crops*.—Decrease of Rs. 2,894 in the value of standing crops is due to more threshing having been done in March, 1930, than in the previous year.
- (b) *Feed of cattle*.—Decrease of Rs. 1,713 is due to lower prices of feeding stuffs.
- (c) *Other Stores*.—Decrease of Rs. 1,339 is due to less wear and tear of machinery parts, etc., as for example Steam Tackle replacements were done to the extent of Rs. 2,014 as compared with the expenditure on this item amounting to Rs. 2,941 incurred in 1929-30.
- (d) *Wages*.—Increase of Rs. 2,301 is due to the fact that a larger area of 124 acres was dealt with for field experiments of the other sections of the Institute and the various crop trial experiments required greater amount of manual labour, e.g., separate threshing of several varieties of crops which is essential to keep the seed pure.
- (e) *Manure*.—Oilcakes were available at cheaper rates and the quantity of Farm Yard manures taken over from the Breeding Herd Section decreased as the number of cattle was reduced owing to the discontinuance of the cross-breeding operations. This accounts for the decrease of Rs. 1,889.
- (f) *Pay of officers*.—Decrease of Rs. 3,662 is due to saving in the pay of the Imperial Agriculturist which post was not filled up but was held by another officer in addition to his own duties.
- (g) *Pay of Establishment*.—The increase of Rs. 742 is due to annual increments in the pay of the establishment and inclusion of half the pay of costs clerk amounting to Rs. 646 as direct charges in the cultivation accounts of this year. In the previous year it was shown under indirect charges.
- (h) *Allowances and Honoraria*.—Decrease of Rs. 1,177 is due to less touring done by the staff and the Imperial Agriculturist and no grain compensation allowance having been paid to the inferior staff on account of cheaper prices of the foodstuffs.

(i) *Sundry Expenses*.—The increase of Rs. 897 is due to more railway freight paid on new machinery such as Crude Oil Tractor and Steam Engine, etc., purchased during the year.

(j) *Repairs to Farm Buildings*.—Increase of Rs. 1,315 is due to more extensive repairs to old godowns and Bhusa sheds, and construction of new manure pit.

244. The total receipts amounted to Rs. 84,490 as compared with Rs. 1,15,776 during the year 1929-30 showing a decrease of Rs. 31,286 which, as explained above, is due mainly to the lower prices of Farm produce and also lower crop production on account of scanty rainfall.

245. *Balance Sheet. Assets*.—Rs. 12,389 were spent on the purchase of a new crude oil tractor, a portable steam engine and a manure spreader.

A blacksmith's shop and extension to Farm Office costing Rs. 3,666 were added to the buildings.

Live Stock stands practically at the same value.

246. *Stores*.—The store transactions during the year are detailed below :—

	Rs.	a.	p.
Opening Balance . . . . .	26,484	7	6
Add Farm Produce . . . . .	68,461	15	6
Stores purchased . . . . .	26,564	9	7
Total . . . . .	1,21,511	0	7
Less Issues . . . . .	93,139	8	10
Book balance . . . . .	28,371	7	9
Value of stock on hand . . . . .	33,862	6	6
Profit on stores transactions . . . . .	5,490	14	9

This profit is due to the inclusion of freight on stores (under sundry expenses) in the accounts. The 10 per cent. supervision charges recovered from sundry customers and other departments in respect of issue of stores also accounts for this profit to a certain extent.

Nearly all the *rabi* crops were harvested and threshed before the end of the commercial year 1930-31 and only crops worth Rs. 2,658 were standing in the field.

#### *Cattle Breeding Experiments.*

247. The year under review began with a total of 347 heads of cattle excluding sheep and ended with 247. This decrease in the number of cattle is due to the discontinuance of the cross-breeding operations in accordance with the orders of the Government of India and the consequent disposal of a large number of cross-bred cows.

248. The total expenditure amounted to Rs. 66,787 as compared with Rs. 91,659 in the year 1929-30, showing a total decrease of Rs. 24,872 which is mainly due to (1) the reduction in the number of cattle, (2) closing of the milk depot at Muzaffarpur, (3) discontinuance of the transportation of milk by motor

lorries to Muzaffarpur, (4) stopping milk supply to Laheria Sarai and Samastipur, (5) reduction in the prices of feeding stuffs owing to lower market rates of the agricultural produce.

The variations in the expenditure from the last year's figures under various items may be explained as follows :—

- (a) *Grain and fodder*.—Shows a decrease of Rs. 10,572 which is due to reduction in the rates of grain and other consumable articles in accordance with the local market rates, and also to reduction of the herd.
- (b) *Grazing*.—Shows a decrease of Rs. 1,357 which is due to maintenance of lesser number of animals in the herd.
- (c) *Pay of officers*.—Decrease of Rs. 4,701 is due to there being no permanent Imperial Agriculturist as already mentioned under Cultivation Experiments. Only the special pay of the Officiating Imperial Agriculturist has been charged.
- (d) *Allowances and Honoraria*.—Less expenditure is due to non-payment of grain compensation allowance to the inferior staff owing to lower prices of food stuffs and also to the fact that the Officiating Imperial Agriculturist did not undertake tours for the Diary.
- (e) *Pay of Establishment*.—The increase of Rs. 2,141 is due to the annual increments in the pay of the staff and the inclusion of half the pay of the Cost Clerk amounting to Rs. 646.
- (f) *Pensionary charges*.—Are less according to the new rules.
- (g) *Direction charges*.—Are less because the cost clerk's pay has been included in the pay of the Establishment as a direct charge.
- (h) *Repairs to Buildings*.—Show an increase of Rs. 535 which is due to extensive repairs to the old building.
- (i) *Wagess*.—Show a reduction of Rs. 833 which is due to the closing up of the milk depot at Muzaffarpur and the discontinuance of the milk supply to other out-stations.
- (j) *Other stores consumed, other expenses and cost of transport, etc.*—Decrease in expenditure under these items is due to the discontinuance of the milk depot at Muzaffarpur and the transportation of milk by motor lorries.

249. The profit and loss accounts show an income of Rs. 22,563 during the year under review as against Rs. 37,237 for the year 1929-30. The decrease of Rs. 14,674 is mainly due to :—

1. Decrease in the quantity of milk produced owing to the sale of the cross-bred cows.
2. Decrease in the quantity of milk sold outside and increase in that sold at Pusa (as per statement III below), the local rate being lower than the outside rate.
3. Loss in making *ghee* from the surplus milk.



*Balance Sheet.*

250. *Assets*.—A sum of Rs. 8,425 was spent on new additions to buildings for the cattle.

The value of Live Stock decreased by Rs. 12,547 due to the sale of about a hundred cross-bred animals during the year under review.

251. The following milk and herd statistics may be of interest.

*I.—Strength of the Herd on 31st March 1931.*

	1929-30.	1930-31.
Number of cows in milk . . . . .	84	49
Number of cows dry . . . . .	47	56
Bulls . . . . .	7	5
Bullocks . . . . .	8	8
Bull-calves . . . . .	83	71
Heifers . . . . .	118	58
Sheep . . . . .	76	94
Total . . . . .	423	341

*II.—Milk Statistics.*

	1929-30.	1930-31.
Number of animals milked during the year . . . . .	24,607	22,034
Number of animals dry during the year . . . . .	19,984	17,033
Total milk for the year . . . . .	4,21,365 lb.	3,74,850 lb.
Average yield per animal per day . . . . .	17·107 lb.	16·29 lb.

*III.—Statement showing yield and disposal of milk.*

	1929-30. lb.	1930-31. lb.	1929-30. lb.	1930-31. lb.
Total yield for the year . . . . .	..	..	4,21,365	3,74,850
<i>Deduct—</i>				
Handling loss . . . . .	355½	281	..	..
Spoiled . . . . .	2,085	523	..	..
Loss in distribution at Pusa . . . . .	1,664½	1,584½	..	..
Loss at depot at Muzaffarpur . . . . .	332	84½	..	..
Issued to animals for medicine . . . . .	226½	222	..	..
Fed to calves . . . . .	82,869	92,793½	..	..
Issued for analysis . . . . .	858	817	..	..
Total deductions . . . . .	..	..	88,390½	96,305½
			3,32,974½	2,78,544½
Sold at Pusa . . . . .	..	..	1,87,537	2,09,934
Sold outside Pusa . . . . .	..	..	1,07,996	18,689½
Issued for manufacturing cream . . . . .	..	..	37,441½	49,921
Total . . . . .	..	..	3,32,974½	2,78,544½



The average yield per animal per day was less during the year under review which was due to the disposal of the large number of cross-bred cows which were heavy milkers. It will appear from statement III that the milk spoiled was considerably less due to the closing of the milk depot at Muzaffarpur and the consequent discontinuance of the transport of milk there. The milk fed to calves shows an increase of 9,924½ lbs. as the number of calves was larger in 1930-31 than in the year 1929-30. The average number of calves reared each month during 1930-31 was 43·7 as compared with 38·4, during the year 1929-30.

#### *Kitchen Garden.*

252. In the kitchen garden fruits and vegetables are grown and sold to the employees of the Estate at market rates. Certain additional temporary establishments are engaged and some contingent charges are incurred. It has been decided that this garden should be run, as far as possible, on a self-supporting basis, as it is maintained mainly for the benefit of the employees, and not for the requirements of the Institute.

The expenditure on the garden for the year 1930-31 amounted to Rs. 977-14-9 as against Rs. 1,038 in the year 1929-30, while the receipts amounted to Rs. 906-13-6 as against Rs. 1,051 in the last year resulting in a deficit of Rs. 71-1-3 as against a small surplus of Rs. 13 in the year 1929-30. Attempt was made to curtail the contingent expenditure in order to make it self-supporting despite which there has been a decrease in income which is due to the following causes :—

- (1) The rates for almost all the vegetables in the local market were considerably low throughout the year under review and consequently the rates for vegetables in the kitchen garden had to be reduced in accordance with the prevailing market rates.
- (2) Many plantain and papaya trees fell down last year.
- (3) Mango trees in the kitchen garden yielded no fruit during the year.
- (4) Peach crop was considerably affected by the early rainfall.
- (5) Potatoes worth Rs. 100 had to be thrown away as they were affected by a disease known as “sprain disease”.

#### *Sugar Cable Service.*

253. During the year under review the Sugar Cable Service continued to obtain regularly up-to-date information regarding the sugar crops of the world and market reports from the important centres of the sugar trade and circulated the information to the principal sugar firms in India.

This service also furnished the Sugar Bureau with accurate and up-to-date crop reports and statistics and enabled the Bureau to publish regularly in the Indian Trade Journal quotations for various grades of sugar and stocks of sugar in the principal markets. It also enabled the Sugar Bureau to supply much valuable information on sugar to the Director-General of Commercial Intelligence and to other Government Departments.

The receipts of the Sugar Cable Service consist of subscriptions realised from Sugar firms in India and amounts received from foreign agents on account of the cost of cables and other services rendered to them. The expenditure consists of the pay of temporary establishment engaged for the work, cost of telegrams to members and Indian agents, cost of cables to and from foreign countries, cost of stationery and of other ordinary contingent items.

The receipts of this service during the year 1930-31 amounted to Rs. 16,527-13-6 and the expenditure including the decrease in the opening balance of stamps amounted to Rs. 19,466-1-6. The result is a loss of Rs. 2,938-4-0.

The receipts of the year 1930-31 fell short by Rs. 5,875-3-0 in comparison with the receipts of the preceding year and this is due to the heavy fall in the membership of the service on account of the continuous depression in the world's sugar trade since last 3 years.

The expenditure is less by Rs. 1,787-8-7 than in the year 1929-30 which is due to smaller purchase of the service postage stamps and lower expenditure on cables from foreign countries.

## SECTION II--REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

254. The net "cost to Government of the Commercial, Educational and Research activities" during the year under review and the previous year, in the Cultivation and Cattle Breeding sub-sections of the Agricultural Section of the Institute, is shown below :—

			1930-31.	1929-30.
			Rs.	Rs.
Cultivation Experiments	..	..	78,027	58,049
Cattle Breeding Experiments	..	..	53,089	65,331
			<hr/>	<hr/>
			1,31,116	1,23,380
			<hr/>	<hr/>

The increase of the net cost during the year in the case of the Cultivation Experiments, is mainly due to the lower prices at which Farm produce have been valued and also to lower crop produce on account of scanty rainfall. It will be seen also that the "Wages" for the year 1930-31 are higher than the wages for the previous year, the reason for which has been explained in the Review.

The decrease in the case of the Cattle Breeding Experiments is due to (1) reduction in the number of cattle and consequent reduction of the yield of milk, (2) discontinuance of sale of milk in outside depots and (3) reduction in the prices of feeding stuffs owing to lower market rates of the agricultural produce.

255. The Receipt and Expenditure Account of the Sugar Cable Service shows a deficit of Rs. 98 as against a surplus of Rs. 2,840 during the previous year (1929-30) and that of the Kitchen Garden a deficit of Rs. 71 as against a surplus of Rs. 13 during the previous year (1929-30).

256. The increases and decreases in the working results have been commented on and explained in the Financial Review.

THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.  
257. Balance Sheet of the Agricultural Section—Cultivation Experiments as at 31st March 1931.

Liabilities.	1929-30.		1930-31.		Assets.		1929-30.		1930-31.	
	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.
Expenditure from imprest awaiting recoupment . . . . .	..	117	..	88	Land at cost . . . . .		..	1,13,325	..	1,13,325
Sundry Creditors . . . . .	..	3,545	..	8,405	Buildings at cost less depreciation . . . . .		56,084	56,599	56,599	56,599
Outstanding Creditors . . . . .	..	..	..	7,973	Add—additions . . . . .		2,094	3,666	3,666	3,666
Government of India Capital account —					Less depreciation . . . . .		58,128	60,265	60,265	60,265
Balance at credit . . . . .	3,48,293	..	3,55,480	..			1,530	1,553	1,553	1,553
Add—receipts from Treasury (Central office) and adjustments . . . . .	1,09,046	..	1,04,102	..	Plant and machinery at cost less depreciation . . . . .		64,004	59,434	59,434	59,434
	4,57,309		4,59,582		Add—additions . . . . .		785	12,389	12,389	12,389
Defunct—payments into Treasury (Central office) and adjustments . . . . .	87,213	..	65,603	..	Less transferred to Tools and Implements . . . . .		64,789	71,823	71,823	71,823
	3,70,096		3,93,979		Less depreciation . . . . .		5,355	1,285	1,285	1,285
Add—Indirect charges due to Government . . . . .	23,234	..	20,857	..	Tools and Implements as per valuation . . . . .		..	59,434	59,434	59,434
Defunct—Loss during the year . . . . .	—37,850	..	—58,049	..	Furniture and Fittings . . . . .		..	8,933	8,933	8,933
	3,55,480		3,56,787		Livestock as per valuation . . . . .		7,305	2,600	2,600	2,600
					Add—additions . . . . .		1,938	7,684	7,684	7,684
					Defunct—casualties and transfers . . . . .		9,293	7,944	7,944	7,944
					Defunct—depreciation . . . . .		1,189	328	328	328
					Stores as per valuation . . . . .		..	7,684	7,684	7,684
					Standing crops at valuation . . . . .		..	26,485	26,485	26,485
					Sundry Debtors (considered good) . . . . .		..	24,274	..	24,274
					Sale proceeds on hand . . . . .		..	1,553	..	1,553
					Loss during the year . . . . .		..	207	..	207
							..	58,019	..	58,019
							..	3,59,142	..	3,73,253

<p>S. C. SEN, Head Assistant, Accounts Branch, Imperial Institute of Agricultural Research, Pusa.</p>	<p>B. A. KEEN, Director. K. M. SUBRAMANIAM, Assistant Audit Officer-in-Charge, Calcutta Circle.</p>
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## THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

*Agricultural Section—Cultivation Experiments.*

## 258. Production and Profit and Loss Account for the year ended 31st March 1931.

Particulars.	1929-30. Rs.	1930-31. Rs.	Particulars.	1929-30. Rs.	1930-31. Rs.
To Standing crops.			By oats produce		
" Feed of cattle			" sugarcane produce		
" Other stores consumed			" maize produce		
" Wages			" arhar produce		
" Manure			" other produce		
" Pay of officers			" grazing		
" Pay of establishment			" Miscellaneous receipts		
" Overseas pay, etc.			" standing crops		
" Allowances and honoraria			" Loss carried forward		
" Repairs to buildings					
" Sundry expenses					
" Depreciation on buildings					
do. Plant and Machinery					
do. Livestock					
do. Tools and implements.					
Total	1,50,591	1,41,660	Total	1,50,591	1,41,660
To Loss brought forward			By total loss		
" Pensionary charges					
" Direction charges					
" Audit fees					
" Interest on capital					
Total	58,049	78,027	Total	58,049	78,027

Rs.

\*Commercial Audit Branch

Other audit officers

Rs.

800

1,050

## THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

## 259. Balance Sheet of the Agricultural Section—Cattle Breeding Experiments as at 31st March 1931.

Liabilities.	Year 1929-30.		Year 1930-31.		Assets.	Year 1929-30.		Year 1930-31.	
	Rs.	Ra.	Rs.	Ra.		Rs.	Ra.	Rs.	Ra.
Expenditure from Imprest awaiting clearance	..	52	..	..	Buildings at cost, less depreciation	53,330	..	52,683	..
Transport charges outstanding	..	25	..	..	Less depreciation during the year	-1,939	..	-1,992	..
Outstanding Creditors	..	..	..	4,030	Add—Additions during the year	1,295	..	8,425	..
Government of India Capital Account—									
Balance at credit	1,66,401	..	1,68,805	..	Plant and Machinery at cost, less depreciation	4,361	..	3,317	..
Add—Receipts from Treasury (Central office) and adjustments	87,891	..	71,053	..	Add—additions during the year	120	..	1,285	..
					Less transfers	4,481	..	4,602	..
	2,54,292	2,39,853				200	..	1,210	..
Defect—Payments into Treasury (Central office) and adjustments	41,162	36,531			Less depreciation	4,281	..	3,382	..
Capital Debt due	2,13,130	2,09,327				894	..	252	..
Add—Indirect charges due to Government	10,908	8,865			Tools and Implements as per valuation	..	3,317	..	3,150
Defect—Loss	-55,233	-65,331			Livestock as per valuation	44,493	2,000	..	2,189
Total debt due to Government	1,68,803	1,46,861			Less casualties	-1,415	..	40,888	..
					Less sold	-8,470	..	..	..
					Add—additions during the year	390	..	-15,850	..
								20	..
					Add—Appreciation	34,998	..	24,563	..
						5,890	..	3,777	..
					Furniture and Fittings	..	40,888	..	28,341
					Dairy produce	..	818	..	818
					Sundry debtors (considered good)	..	97	..	68
					Sale proceeds on hand	..	3,702	..	2,894
					Loss during the year	..	43	..	1,232
						..	69,331	..	53,089
							1,68,882		1,50,900

S. C. SEN,

Head Assistant, Accounts Branch,  
Imperial Institute of Agricultural  
Research, Pusa.

B. A. KEEN,

Director,  
Imperial Institute of Agricultural  
Research, Pusa.

K. M. SUBRAMANIAM,

Assistant Audit Officer-in-Charge,  
Calcutta Circle.







## THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

261. Statement showing the receipts and payments account of the Kitchen Garden with the comparative figures for the years 1929-30 and 1930-31.

	Receipts			Expenditure.	
	1929-30.	1930-31.		1929-30.	1930-31.
By cash sales . . . . .			To pay and grain compensation allowances of		
Supplies to Hospital . . . . .	1,024	871	manies, etc . . . . .	880	803
Supplies to other Departments . . . . .	10	16	Cost of Manure . . . . .	4	30
Deficit . . . . .	17	20	Cost of seeds . . . . .	59	76
	..	71	Miscellaneous expenses . . . . .	95	69
			Surplus . . . . .	13	..
Total . . . . .	1,051	978	Total . . . . .	1,051	978

## THE AGRICULTURAL RESEARCH INSTITUTE, PUSA.

*Sugar Cable Service.*

262. Statement showing the receipts and expenditure for the years 1929-30 and 1930-31.

	Receipts.			Expenditure.	
	1929-30.	1930-31.		1929-30.	1930-31.
Surplus brought down	.	.	Opening balance :—		
Subscriptions	.	.	of Stamps less closing balance	.	.
Miscellaneous receipts	.	.	Pay and allowances	.	.
Deficit	.	.	Cost of cables and telegrams	.	.
	.	.	Stationery and office expenses	.	.
	.	.	Surplus	.	.
	.	.		.	.
Total	24,093	19,466	Total	24,093	19,466

## IMPERIAL SUGARCANE STATION, COIMBATORE.

*Remarks by the Director of Commercial Audit.*

263. The local audit of the accounts of the office of the Sugarcane Expert, Coimbatore, for the year 1930-31 was conducted by the Commercial Audit Branch under the orders of the Auditor General.

264. The Station is not a commercial concern, but is intended for research and for growing improved sugarcanes. The seedlings are sent out wherever required, free of cost. The income of the Station consists of miscellaneous receipts derived from the sale proceeds of sundry produce and crops raised in the Estate. Accounts in commercial form are not maintained, nor are Balance Sheets and Trading and Profit and Loss Accounts compiled. The receipts and payments of the Station are however given below for information :—

### SUGARCANE STATION, COIMBATORE.

#### *Receipts and Payments for the year 1930-31.*

<i>Receipts.</i>	<i>Rs.</i>	<i>Payments.</i>	<i>Rs.</i>
House rent .. ..	3,734	Pay of Officers .. ..	22,289
Tuition fees .. ..	125	Pay of Establishment .. ..	24,816
Cart hire, etc., recovered .. ..	494	Allowances .. ..	4,027
Sale of cocoanuts .. ..	191	Station working expenses .. ..	19,721
Sale of Jaggery .. ..	2,154	Works .. ..	13,923
Sale of cholam, etc. .. ..	430	Other supplies and services, Post- age and office expenses.	4,527
Sale of Paddy .. ..	1,724		
Contribution from District Board for maintenance of road.	300		
Other Sundry Receipts .. ..	791		
Refund of Expenditure .. ..	38		
Total Rs. ..	9,981	Total Rs. ..	89,303

## THE IMPERIAL INSTITUTE OF VETERINARY RESEARCH, MUKTESAR-KUMAUN, U. P., WITH DAIRY ATTACHED AND THE IMPERIAL VETERINARY SERUM INSTITUTE, IZATNAGAR.

### SECTION I.—FINANCIAL REVIEW BY THE DIRECTOR FOR THE YEAR 1930-31.

265. The main functions of the Imperial Institute of Veterinary Research are the investigation of the diseases, of domesticated animals in all provinces of India and the institution of suitable measures for the prevention and cure of such diseases by means of biological research in the laboratory and at the place of attack. The course of such biological research tended very early in the history of this Institute to the manufacture of certain sera and vaccines that could be used for the effective control of the diseases of domesticated animals, and the remarkable success of these products and the increasing confidence with which they were used by Veterinary workers in different parts of India has resulted in a major part of the work of both this Institute and its sub-station, the Imperial Veterinary Serum Institute, Izatnagar, being devoted to the manufacture of the above products. Research work has been mainly directed to the perfection of the original products and the discovery of new ones. Still, every endeavour has been made to improve methods of diagnosis and control as the result of laboratory experiment, to extend advanced instruction to

the higher Veterinary Officers as well as Veterinary graduates, and to advise and prescribe in complicated cases baffling the skill of Veterinary workers in different parts of the field. In order to undertake regular and systematic research in important types of animal diseases, to tackle which only sporadic attempts have so far been made, the assistance of the Imperial Council of Agricultural Research has been invoked and it is hoped that, with their aid, it will soon be possible to enlist the undivided attention of certain highly trained officers purely for Research. As this Review is intended to be published as one of the annexures to the Report on the Appropriation Accounts of the Central Government for the year 1930-31, only those activities of the Institute which have a financial bearing can be noticed here. A full and comprehensive record of the other activities of the Institute will be found in the Annual Report.

266. It will be observed from the enclosed statement, showing the number of doses of the principal products issued during the year under review and the two preceding years, that there was a falling off in the demand for all the products during the year as compared with the issues of the two previous years. In the case of Anti-Rinderpest serum the difference between the issues of 1930-31 and the previous year was as much as 15 lacs of doses and there was also a considerable drop in the demand for Anti-Hæmorrhagic Septicæmia serum. It appears that the main reason for the fall in demand for Anti-Rinderpest serum is that the peak of the last wave of this disease which commenced to spread through India about 6 years ago has been reached and at the moment Rinderpest is declining in most parts of the country. Another factor, which is undoubtedly influencing adversely the sale of the products of the Institute, as evidenced by the fact that there is a general drop in the demand, is the shortage of money in most of the Provinces, and unless steps are taken to reduce the price of our main products it is to be anticipated that some Provinces will cut their demands still further.

As mentioned in the last year's review a system of Cost and Commercial Accounts was introduced at the Imperial Veterinary Serum Institute, Izatnagar, on 1st August 1930, and as soon as the accounts for a complete year have been audited, proposals to reduce the prices of the 4 products manufactured at that Institute to something more in accordance with the cost of production, will be submitted to the Government of India. The bottling and issue of the three largest products from Izatnagar to the field was continued during the year, and this has reduced the transport charges.

267. A statement showing the different items making up the receipts and expenditure of the Institute for the year under review and for the two preceding years is affixed. It will be observed that the total expenditure for the year amounted to Rs. 8,24,053 and the total income to Rs. 12,00,381 resulting in an excess of receipts over expenditure amounting to Rs. 3,76,328 as compared with Rs. 7,82,183 in the previous year. The excess cannot be regarded as the true profit of the Institute since the whole of the accounts are not run on a commercial basis. The reduction in the surplus is due, as previously explained, to the smaller demand for the products of the Institute, particularly Anti-Rinderpest serum, which occurred during the latter half of the year.

For the first time it is possible to show the expenditure of the Imperial Institute of Veterinary Research, Muktesar, and the Imperial Veterinary Serum Institute, Izatnagar, separately. It will be seen that the expenditure incurred at Muktesar was rather more than 5½ lacs of rupees, whereas that at Izatnagar was just over 2½ lacs. It must not be supposed, however, that this represents the difference between expenditure on Research and on Production, for several products are still made at Muktesar, where testing of the Izatnagar products also takes place.

The excess under "Salaries and Allowances" is due to the operation of time-scales of pay and to the creation of the additional posts of the Personal Assistant to the Director, the Veterinary Deputy Superintendent at Izatnagar and a few subordinates both at Muktesar and Izatnagar, which were absolutely necessary for the smooth and efficient working of the two Institutes.

The excess under head "Chemicals and Apparatus" is due to the fact that the expenditure on account of English Charges (High Commissioner) on Stores has also been included this year under this sub-head.

The percentage of expenditure to receipt has, during the year under review, risen to 68·65 against 49·86 and 49·63 in the years 1929-30 and 1928-29 respectively. The rise is mainly due to less income on account of smaller demand of the products and continuance of recurring charges and increase in expenditure under "Salaries and Allowances" as previously explained.

**268.** In the following paragraphs an attempt will be made to present an account of the most noteworthy features of the running of the two Institutes, namely, the purchase and feed of animals, the results of cultivation, Forest produce, Transport, and the Commercial Accounts of the Dairy at Muktesar :—

(a) *Animals*.—Owing to decreased production the number of animals purchased in the year under review was 1,596 hill bulls, and 1,872 buffaloes as compared with 2,033 hill bulls and 2,209 buffaloes in the previous year. The average price of bulls purchased fell to Rs. 21-4-0 and that of buffaloes increased to Rs. 32-4-0 as compared with Rs. 22-4-0 and Rs. 29-8-0 respectively in the previous year. After completing the period of production yield 1,898 buffaloes were sold at an average price of Rs. 16-4-3 against Rs. 14-10-0 in the preceding year. The mortality among bulls before they were brought under experiment has been progressively reduced from 250 in 1928-29 to 100 in 1929-30 and to 66 in the year under review.

One riding pony met with an accident and had to be destroyed. 452 bulls, 25 buffaloes, 42 goats, 39 sheep and 2 cows were sold by auction and a total sum of Rs. 1,756 was realised.

(b) *Feed of animals*.—In addition to the fodder obtained from the Estate at Muktesar, 7,281 maunds of grain, 11,974 maunds of green grass and 12,286 maunds of hay were purchased from contractors at a cost of Rs. 43,889, Rs. 7,671 and Rs. 14,831 respectively, as compared with 8,005 maunds of grain, 890 maunds of green grass, 10,259 maunds of hay at a cost of Rs. 56,516, Rs. 501, and Rs. 11,541 respectively in the previous year. The cost of hay was considerably enhanced by reason of the Institute having to purchase over



2,000 maunds of hay in the early part of the year at Rs. 2-12-0 per maund owing to the failure of the Hay Contractor of the previous year to fulfil his contract. There was no shortage of fodder supply during hot weather of 1931.

(c) The income from the Farms at Izatnagar and Muktesar worked out at Rs. 33,368 and Rs. 14,737 respectively, as compared with the last year's figures of Rs. 24,438 and Rs. 16,722, while the expenditure amounted to Rs. 39,551 and Rs. 24,517 (including Rs. 1,840 for supervision charges) respectively as against Rs. 38,276 and Rs. 23,914 in the previous year. This shows a loss of Rs. 6,183 at Izatnagar and Rs. 9,780 at Muktesar as compared with Rs. 13,838 and Rs. 7,192 respectively in the previous year. Much of the loss on the Muktesar farm can be attributed to the expense involved in making special efforts to get the land, which has been neglected for years, well dressed with farm yard manure, lime, etc. In addition, the *rabi* crop at Latoli to a great extent failed probably owing to bad seed having been supplied. The loss at the Izatnagar farm may be ascribed mainly to the unsatisfactory supply of canal water as well as to the partial failure of the rains.

(d) *Forest*.—The Reserved Forest at Muktesar which continues to supply the entire supply of wood fuel and charcoal required at the station, yielded through the agency of a contractor, 17,713 maunds of firewood and 1,620 maunds of charcoal. The prices at which firewood and charcoal were sold during the year were Re. 0-9-6 and Rs. 1-5-6 per maund respectively as compared with Re. 0-11-0 and Rs. 1-8-0 per maund in the previous year. In addition, 380 maunds of hay, 6,852 maunds of green fodder, 6,922 maunds of oak leaves, 1,884 maunds of pine needles, 15 loads of rinjals and 350 posts were obtained from forest and used departmentally. 42 maunds and 20 seers of lichen were sold to a contractor at the rate of Re. 0-8-0 per maund; 115 dead and over-mature trees were sold to employees of the Institute at a total value of Rs. 193-8-0; and 52 pine trees were sold by public auction and fetched the sum of Rs. 335. 300 deodar seedlings were planted in the forest and 10 maunds of oak seed and 38 lbs. of pine (*chir*) seeds were sown.

(e) *Transport*.—The transport contractor moved 3,087 serum cases from Muktesar to Kathgodam and 800 cases of crude serum were transported from Izatnagar to Muktesar. A considerable amount of other goods were transported through the contractor during the year. The total amount paid to him was Rs. 14,317 as compared with Rs. 16,643 during the previous year.

(f) *Dairy*.—The Dairy was run in the same way as in the previous year, *i.e.*, only cows, stud bulls and calves not yet under experiment were included in the Dairy herd accounts and a credit for Rs. 1,716-14-0 representing 30% of the total expenditure on the herd was afforded to the Dairy Accounts in respect of charges relating to research and education facilities which it provides. On this basis the working of the year shows a profit of Rs. 2,014 as compared with a loss of Rs. 1,163 and a profit of Rs. 1,301 for the years 1929-30 and 1928-29 respectively. The profit is due to fall in prices of grain and fodder savings effected under wages of staff and miscellaneous expenses, and increase in the milk yield. There was also no mortality of animals during the year under review. The Government of India have, in their letter No. 704-Agr., dated 27th April 1931, ordered that the above percentage shall be raised to 50 per cent., but at the same time they desire that the old arrangement of

including all young stock, whether under experiment or not, shall be reverted to. These orders have been given effect to from 1st April 1931, but it may be observed that if these arrangements had been in force during the year 1930-31, which was a very favourable one from the point of view of the Dairy, the large profit would have been converted into a loss of about Rs. 334. It, therefore, seems too much to hope that any better results than this will be obtained in the current financial year. The average cost of production per seer of milk for 3 years was as below :—

								Per seer.		
								Re.		
1928-29	..	..	..	..	..	..	..	0	3	10.25
1929-30	..	..	..	..	..	..	..	0	6	2.28
1930-31	..	..	..	..	..	..	..	0	3	5.2

A comparative statement showing the quantity of milk produced, quantity available for sale, and the surplus for 3 years is given as under :—

	1930-31.	1929-30.	1928-29.
Total milk yield in seers .. .. .	20,154	16,433½	16,648½
Loss in handling in seers .. .. .	221½	222½	371
Percentage loss to total yield .. .. .	1.09%	1.35%	2.33%
Quantity available for sale in seers .. .. .	19,932½	16,211	16,277½
Quantity sold .. .. .	19,783½	15,702½	15,778½
Percentage of quantity sold to quantity available for sale.	99.25%	96.86%	96.93%
Surplus fed to calves in seers .. .. .	149½	508½	499
Percentage of surplus fed to calves to quantity available for sale.	75%	3.14%	3.07%

269. The balance sheet showing the financial position of the Dairy on the 31st March 1931 and the Production and the Profit and Loss Account for the year 1930-31 are affixed.

The variations are explained as under :—

- (i) The decrease in the feeding charges is due to fall in price of grain and fodder.
- (ii) The permanent Dairy Overseer having been deputed to another post, his substitute was appointed on less pay during the year. This explains the decrease in wages and salary of staff and in their leave and pensionary contributions.
- (iii) The audit fee has been raised from Rs. 50 to 125 as desired by the Audit Department.
- (iv) For direction and supervision, cost of accountancy work done in Central office and the value of stationery consumed Rs. 200 have been charged. It includes Rs. 100 for the year 1929-30 on that account.
- (v) A sum of Rs. 427-7-9 that was outstanding at the end of March 1931 has since been recovered in full.
- (vi) Rs. 1-15-9 shown as doubtful debt in 1929-30 have also been realised in 1930-31 ; hence this is accounted for in the profit and loss account but eliminated from the balance sheet.

## 270. STATEMENT OF RECEIPTS AND EXPENDITURE. (For 3 years.)

Receipts.	1930-31.	1929-30.	1928-29.	Expenditure.	1930-31.	1929-30.	1928-29.
Sale of sera, vaccines and other products	M. 11,49,923	15,20,793	14,22,482	Salaries and Allowances	M. 2,44,052	2,51,297	2,30,227
Sale of Animals	.. .. M. 1,605	23,784	25,022		I. 62,090		
	I. 34,464			Purchase of Animals	.. M. 48,952	1,19,741	1,07,195
Miscellaneous Receipts	.. .. M. 9,335	15,660	20,917		I. 65,062		
	I. 369			Feed and Keep of Animals	M. 1,38,959	2,29,524	2,23,698
Dairy Receipts	.. .. M. 4,685	Included under head "miscellaneous re- ceipts".			I. 79,666		
	.. ..			Cost of Chemicals, etc.	.. M. 36,354	34,347	37,858
					I. 3,308		
				Other Supplies and Services and "Contingencies"	M. 95,186	1,43,145	1,29,818
					I. 50,424		
	M. 11,65,548				M. 5,63,503		
	I. 34,833				I. 2,60,550		
	12,00,381	15,60,237	14,68,421		8,24,053	7,78,054	7,28,796
Net excess of receipts over expenditure					.. ..	3,76,328	7,82,183
Percentage of expenditure to receipts					.. ..	68-65	49-63

271. Statement showing the total number of doses of Principal products, issued during last 3 years.

Name of Product.	1928-29.	1929-30.	1930-31.
Anti-Rinderpest Serum .. ..	49,32,954	60,68,051	45,20,302
Anti-Hæmorrhagic Septicæmia Serum	4,80,648	7,06,989	3,39,789
Anti-Hæmorrhagic Septicæmia Vaccine.	4,90,780	3,85,057	3,29,950
Anti-Blackquarter Serum .. ..	82,953	83,179	62,254
Anti-Blackquarter Aggression ..	2,22,419	2,18,026	1,99,890
Mallein .. ..	34,309	45,576	37,959
Anti-Anthrax Serum .. ..	40,033	43,901	29,116

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

272. *Paragraph 266 of the Financial Review.*—The accounts for the eight months disclose a net profit of Rs. 5,08,341 representing 77·21% of the turnover. The profit is mainly due to the sale of sera at rates higher than the cost of production.

	A.R.S. Rate per dose.	H.S.S. Rate per dose.	B.Q.S. Rate per dose.	B.Q.A. Rate per dose.
Total cost of production (as per production statement) . . . .	0-0-8·48	0-1-3·58	0-1-3·23	0-1-5·72
Selling rate per dose . . . .	0-3-0	0-6-0	0-6-0	0-4-0
Profit per dose . . . .	0-2-3·52	0-4-8·42	0-4-8·77	0-2-6·28

It was explained that the cost of production as disclosed by these accounts cannot be regarded as normal for the following reasons :—

- (i) These accounts are only for eight months and very little was manufactured during the next four months. The cost of production will therefore be increased if accounts are prepared for a whole year (ending 31st July 1931 as contemplated in paragraph 266 of the Director's Review).
- (ii) It is understood that the Institute is at present working on camp conditions and that when necessary Plant and Machinery and Buildings are put up the cost of production will naturally go up.

273. *Balance Sheet.*—The values assigned to the assets are subject to the approval of the Director, except in the case of land, where the actual amount paid as compensation for acquisition is taken.

274. *Paragraph 268 (c) of the Financial Review and paragraph 345 of the last report.*—The accounts of all the farms at Muktesar have been amalgamated by the Institute during the year and the expenditure and the income on each of the farms is not separately available.

275. *Paragraph 268 (f) of the Review.*—It is stated that the profit is due, among other causes, to "increase in the milk yield" (total milk yield of the whole year and not the average yield per day per cow). It appears from the

following statements that the milk yield per animal has not increased over that of last year.

*Strength of the milking herd.*

					(a)			
					No. at comt.	Addi- tions.	Transfers to expt. side.	Casual- ties.
1st July 1926	.	.	.	.	15	15	18	1 died.
1st April 1927	.	.	.	.	11	21	21	..
1st April 1928	.	.	.	.	11	23	21	1 died.
1st April 1929	.	.	.	.	12	16*	2	2 „ 6 sold.
1st April 1930	.	.	.	.	18	10*	2	..

\*NOTE.—Includes heifer-calves sufficiently grown up to be classed as cows.

					(b)			
					1930-31.	1929-30.	1928-29.	1927-28.
Strength of milking herd at the close of the year	.	.	.	.	26	18	12	11 cows.
No. of animals milked	.	.	.	.	5,038½	4,059	4,416	3,609 „
Milk yield	.	.	.	.	20,154	16,433½	16,648½	13,223½ seers.
						s. ch.	s. ch.	s. ch.
Average yield per day per cow	.	.	.	.	4 srs.	4-0.78	3 12½	3 10½

Besides the reasons stated by the Director, the decrease in the quantity lost in handling and that fed to calves has also contributed towards the profit.

276. Balance Sheet as at 31st March 1931.

Liabilities.	1929-30.		1930-31.	
	Rs.	P.	Rs.	P.
Reserve for indirect charges due to Government	509		735	
				2
Government Capital account	6,220		3,564	
				11
				9
				115
				115
				16
				99
				10
				89
				5,795
				427
				..
Net profit as per Profit and Loss account	..		2,014	
				6,313
	6,729		6,729	6,313

(Sd.) C. BHASKARAIYA,  
Assistant Director of Commercial Audit,  
Calcutta Circle.







Small animals at valuation (Serum)	536	
Stock-in-trade (at cost)—		
Crude stock	1,55,851	1,18,229
Tested stock	2,36,586	1,67,199
		2,85,428
Stores and fuel	6,585	14,340
Grain and fodder (at cost)	2,064	7,655
Chemicals (at cost)	2,203	2,559
Security deposit investment accounts	2,494	5,379
Sundry Debtors (good)	80,756	40,538
Cash in hand	1,351	1,917
Postage stamps	21	51
	4,02,371	4,24,699

(Sd.) K. M. SUBRAMANIAM,  
Assistant Audit Officer-in-Charge,  
Calcutta Circle.  
Commercial Audit Branch.

(Sd.) RAM NARAIN,  
Head Accountant,  
Imperial Veterinary Serum Institute, Izatnagar.

(Sd.) D'COSTA,  
Deputy Director.

## IMPERIAL VETERINARY SERUM INSTITUTE, IZATNAGAR.

279. Trading and Profit and Loss account for the period 1st August 1930 to 31st March 1931.

Cr.

Dr.	Rs.	Rs.	Cr.
To stocks at commencement :—			
Tested	80,735		6,58,388
Crude	1,55,851		761
			17,510
			2,288
“ cost of production as per Production account			
“ cost of serum produced at Maktesar	2,36,586		
“ cost of bottling and packing	2,06,147		
“ net profit to Balance Sheet	130		
	13,171		
	5,08,341		
			1,18,229
			1,67,199
			2,85,428
			9,64,375



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IMPERIAL VETERINARY SERUM INSTITUTE, IZATNAGAR.

281. Statement showing opening balance, receipts, issues and closing balances for the period from 1st August 1930 to 31st March 1931.

	Chemicals.	Grain and fodder.	Stores and fuel.
	Rs.	Rs.	Rs.
Opening Balance on 1st August 1930 . . .	2,203	2,064	6,585
Receipts from 1st August 1930 to 31st March 1931 . . . . .	2,740	51,328	37,582
Total . . . . .	4,943	53,392	44,167
Issues from 1st August 1930 to 31st March 1931.	2,384	45,737	29,827
Closing balance on 31st March 1931 . . .	2,559	7,655	14,340

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## IMPERIAL VETERINARY SERUM INSTITUTE, IZATNAGAR.

282. Statement showing the opening balance, issues and closing balances of each product from 1st August 1930 to 31st March 1931 including Izatnagar products at Muktesar.

	Anti-rinderpest serum.		Haemorrhagic Septicemia serum.		Blackquarter serum.		Blackquarter Aggravation.		Remarks.
	Crude. Doses.	Tested. Doses.	Crude. Doses.	Tested. Doses.	Crude. Doses.	Tested. Doses.	Crude. Doses.	Tested. Doses.	
Opening Balance on 1st August 1930	29,61,287	11,60,667	3,54,989	1,82,405	25,120	24,937	8,240	1,37,524	
Manufactured from 1st August 1930 to 31st March 1931	45,49,248		1,98,037		1,31,121		2,72,250		
Transferred from crude stock		43,01,851	1,588*	1,93,939	1,55,500		2,71,450		*Manufactured at Muktesar.
Total	75,10,535	54,62,518	5,54,614	3,76,344	1,56,241	1,80,437	2,80,490	4,08,974	
<b>Issues—</b>									
Tested Products	43,01,851		1,93,939	2,10,085	1,55,500		2,71,450	1,23,370	
Customers		28,34,033					35,854	200	
Immunisation	26,966						8,240		
Testing and Experimenta, etc.	13,054	1,474	1,230		741				
Wastage, Leakage and Discard	10,49,020	4,041						20	
† Wastage of 28 doses out of Muktesar Product.									
Total issues	63,90,891	28,40,448	1,94,169	2,10,085	1,56,241	35,854	2,80,490	1,22,590	
Balance on 31st March 1931	121,19,644	26,22,070	3,60,445	1,86,259					† 2,62,400 doses in transit from Izatnagar to Muktesar.
Rate	8-06 pias	8-48 pias	0-1-3-58	0-1-3-58	0-1-3-23	0-1-5-24	0-1-5-72		
Value	88,981	1,15,808	29,248	13,491	11,469	26,431			

## FOREST DEPARTMENT, ANDAMANS.

## SECTION I.—REVIEW BY THE CHIEF FOREST OFFICER, ANDAMANS, ON THE ACCOUNTS OF THE YEAR 1930-31.

283. A brief history of the Andamans Forest Department was given in the Review of the accounts for last year, as also the reasons which led to the adoption of the quantity transported to the headquarters depot as the divisor for costs, *vide* paragraphs 354 to 367 of the Appendix to the appropriation accounts for 1929-30. It is sufficient therefore to deal at once with the transactions of the year under review.

284. *Extractions to headquarters*—(a) The quantities are as follows :—

	1930-31.		1929-30.	
	North Andaman.	South Andaman.	North Andaman.	South Andaman.
	Logs. Tons.	Logs. Tons.	Logs. Tons.	Logs. Tons.
Departmental—				
(a) Ordinary . . . . .	14,974	3,773	15,193	15,118
(b) Mechanical operations . . . . .	1,424	..	..	..
Contractors . . . . .	2,223	23,352	2,191	10,052
	18,621	27,125	17,384	25,170
Total	45,746		42,554	

The increase in the North Andaman Division is accounted for by the introduction of mechanical extraction on Interview Island. This matter is dealt with in paragraph 289 below. The South Andaman total includes 369 tons of rough hewn squares. The increase in the contractors' figures is due to a change introduced from July 1930 when all the extraction was given out on contract. Of such total, 19,705 tons were taken over from contractors at Ghat depots and transported departmentally, while 3,647 tons were delivered by them at the headquarters depot from areas in the vicinity of Port Blair.

(b) The all-in-cost of extraction in the North Andaman Division was approximately a rupee per ton cheaper than in 1929-30. It did not, as anticipated last year, approximate to the rate in the South Andaman Division as the new vessel the S. L. "Montagu Douglas" was employed in both Divisions at different times of the year while a large share of such cost chargeable to the North Andaman Division was allocated to Capital Works for the time the vessel was employed in transporting material for the mechanical installation on Interview Island. The cost in the South Andaman Division increased by approximately Rs. 2 per ton. This was due partly to the fact that, prior to the extension of extraction on a contract in July 1930, the outturn was reduced as exports were affected by the interval which elapsed between the expiry of the charter of the S. S. "Ahmedi" in May 1930 and the arrival of her successor the S. S. "Shahjahan" at the end of July 1930, and partly to the fact that the additional transport facilities acquired last year could not be utilised to their

maximum capacity owing to the fall in orders consequent on the trade depression.

285. *Disposal of logs.*—The following are the figures :—

	1930-31.			1929-30.		
	North Andaman.	South Andaman.	Calcutta.	North Andaman.	South Andaman.	Calcutta.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Opening balance . . . . .	762	2,013	500	2,527	923	330
Rough hewn squares wrongly shown as mill sawn . . . . .	..	..	..	147	..	..
Transported during the year . . . . .	18,621	27,125	..	17,384	25,170	..
Sent from the Andamans . . . . .	..	..	6,268	..	..	6,300
Transfers between divisions . . . . .	711	..	..	..	200	..
Found surplus . . . . .	22	6	1	183	128	3
Total	20,116	29,144	6,767	20,241	26,421	6,633
Exported . . . . .	4,293	11,671	..	6,547	9,692	..
Into mill . . . . .	14,056	13,444	..	11,958	13,690	..
Transfers between divisions . . . . .	..	711	..	200	..	..
Used departmentally . . . . .	153	56	..	..	400	..
Sales . . . . .	2	1,236	6,761	..	467	5,836
Written off . . . . .	35	301	..	774	159	297
Free Samples . . . . .	..	..	5	..	..	..
Total issues . . . . .	18,539	27,419	6,766	19,479	24,408	6,133
Closing balance . . . . .	1,577	1,725	1	762	2,013	500

- (i) The issues for export and milling are dealt with in paragraphs 286 and 288 below.
- (ii) The issues for departmental use include 2 tons used for an experiment as to the suitability of a new species for the match industry. The cost of the balance was adjusted in the financial accounts according as the timber was used on capital works or repairs.
- (iii) The increase in sales in the South Andaman Division is due to purchases by the local match factory established during 1929-30.
- (iv) The writes-off have been sanctioned by competent authority. The quantity involved is a small percentage of the total extracted.
- (v) Though the closing stocks remain at practically the same total as last year; the value of the closing stock in the North Andaman Division had to be written down as part of the timber had deteriorated owing to the match log buyers reducing their orders towards the close of the year. The financial effect of this adjustment is dealt with in paragraph 290 (b) below.

286. *Milling.*—(a) The quantity accounts are as follows :—

	1930-31.		1929-30.	
	North Andaman.	South Andaman.	North Andaman.	South Andaman.
	Tons.	Tons.	Tons.	Tons.
<b>Intake—</b>				
Logs . . . . .	14,056.42	13,433.44	11,958.25	13,537.26
Rough hewn squares . . . . .	..	10.28	..	152.60
Defective scantlings from North Andamans.	..	49.95	..	..
<b>Total Intake</b>	<b>14,056.42</b>	<b>13,493.67</b>	<b>11,958.25</b>	<b>13,689.86</b>
<b>Outturn—</b>				
Squares . . . . .	2,078.71	688.80	1,684.97	1,388.05
Scantlings . . . . .	3,332.65	4,494.35	2,809.81	5,065.45
<b>Total</b>	<b>5,411.36</b>	<b>5,183.15</b>	<b>4,494.78</b>	<b>6,453.50</b>
Wastage . . . . .	8,645.06	8,310.52	7,463.47	7,236.36
Percentage of intake . . . . .	61.50%	61.45%	62.41%	52.86%
Products of wastage . . . . .	226.60	71.75	166.74	..
Defective scantlings . . . . .	..	..	..	..
<b>Shingles</b>				
	No.	No.	No.	No.
	3,42,520	7,52,100	65,800	4,56,450
<b>Firewood</b>				
	Cords.	Cords.	Cords.	Cords.
	4,465½	4,172	3,749½	3,716½
<b>Total outturn in terms of scantlings</b>	<b>4,579.88</b>	<b>4,907.63</b>	<b>3,820.79</b>	<b>5,898.28</b>
Wastage . . . . .	9,476.54	8,586.04	8,137.46	7,791.58
Percentage of intake . . . . .	67.42%	63.63%	68.05%	56.91%

1. *North Andaman Mill.*—The increased intake was due to the fact that the mill was operated more successfully in 1930-31, prolonged closing for repairs having been prevented.

Owing to the increased outturn of shingles it is proposed to allow for such in the outturn in future, i.e., instead of adopting as the divisor for costs the

outturn of squares and effective scantlings only as at present and crediting the proceeds of sale of shingles direct to the sawn timber trading account, the divisor will include the tonnage of shingles also, and the sale proceeds of such will be set against the cost of production. It has been found by measurement that, 2,300 shingles are the equivalent of 1 ton of scantlings. Adopting this ratio, the outturn of shingles represents 148·92 tons in 1930-31 against 28·61 tons in 1929-30.

These figures reduce the wastage shown from 9,476·54 tons in 1930-31 and 8,137·46 tons in 1929-30 to 9,327·62 tons and 8,108·85 tons respectively and the percentage of wastage to 66·36% and 67·81% in the respective years. The improvement is reflected in the reduced cost of scantlings.

II. *South Andaman Mill.*—The outturn of shingles was the equivalent of 327 tons in 1930-31 against 198·46 tons in 1929-30. These figures correspondingly reduce the wastage shown, resulting in the percentages of wastage on intake (in terms of scantlings) being 61·21% in 1930-31 against 55·46% in 1929-30. This deterioration in outturn is due—

(i) to the fact that orders for timber in the form of squares dropped, so that the outturn was approximately 700 tons less than in 1929-30. This represents 420 tons in terms of scantlings. As squares require a fewer number of cuts, a larger volume of logs can be put through the mill when the outturn of squares is increased. Such increased intake reduces the percentage of wastages thereon, and

(ii) the new mill was brought into use in 1930-31. In accordance with the intention, about half the benches of the old mill were not used, the labour to run the balance in addition to the new mill being reckoned about the same as for the whole of the old mill. Considerable difficulties, however, were experienced in the new mill owing to the saws giving trouble. Such delays reduced the outturn. The trouble has since been remedied as the transfer of the filer from the North Andaman Division (owing to the temporary closing of that mill in 1930-31 referred to later) enables closer attention being paid to the saws, with consequent reduction in delays and increased outturn.

(b) *North Andaman Mill.*—The cost of production of scantlings fell by Rs. 8·3 per ton. This was due to the cheaper cost of the log into the mill [paragraph 284 (b)] and the increased outturn [paragraph 286 (a)] which resulted in a larger divisor for the total expenses.

*South Andaman Mill.*—The cost of production of scantlings rose by Rs. 24·2 per ton. Approximately Rs. 5 was due to the increase in the cost of the log [paragraph 284 (b)]. The balance was due to increased expenses (including interest and depreciation) consequent on the acquisition of the new mill and gantry, which were borne by a reduced divisor owing to the drop in outturn, dealt with in paragraph 286 (a) above. It is hoped that the improvement since achieved will result in considerably larger outturn to carry the increased expenses.



287. Disposal of sawn timber.—The following figures show the position in regard to this:—

	1930-31.			1929-30.		
	North Andaman. Squares. Scantlings. Tons.	South Andaman. Squares. Scantlings. Tons.	Calcutta. Squares. Scantlings. Tons.	North Andaman. Squares. Scantlings. Tons.	South Andaman. Squares. Scantlings. Tons.	Calcutta. Squares. Scantlings. Tons.
Opening stocks	145	1,213	350	96	646	1,228
Mill output	2,079	3,332	4,494	1,685	2,810	5,065
Found Surplus	..	..	6	34	1	..
Transfer between Divisions	..	..	12	..	..	30
Sent from the Andamans	..	..	2,065	1,665	..	2,420
Total	2,224	4,545	783	3,919	2,405	1,795
Exported	1,516	2,251	533	3,360	..	2,281
Sales	..	43	7	1,147	1,979	1,615
Used departmentally	80	261	24	208	..	3
Free grants	..	..	..	..	..	..
Written off	1	20	..	..	..	..
Classified as defective	..	..	18	..	..	4
To logs account	..	..	..	..	..	12
Transfers between Divisions	..	..	..	..	..	147
Adjustment of error in opening balance	..	..	12	..	..	30
Total issues	1,597	2,687	564	4,749	2,059	1,622
Closing stocks	427	1,958	219	1,170	346	(a) 173
				145	1,213	94
						3,040
						2,770
						96

(a) Includes 75 tons in transit on 31st March 1931.



- (i) The exports are dealt with in paragraph 288 below.
- (ii) The value of timber used departmentally is adjusted in the accounts by debit to production costs or capital according as it is used for repairs or new construction.
- (iii) The writes-off have been sanctioned by competent authority. Of the figure of 80 tons under "Calcutta" 10 tons represent differences between measurements in the Andamans and measurements on arrival in Calcutta. The balance of 70 tons was deteriorated stock borne on the books without value.
- (iv) The closing stocks were as follows :—

	1930-31.		1929-30.	
	Squares.	Scantlings.	Squares.	Scantlings.
	Tons.	Tons.	Tons.	Tons.
North Andaman . . . .	627	1,958	145	1,213
South Andaman . . . .	219	1,170	94	1,407
Calcutta . . . . .	346	173	350	96
Total . . . . .	1,192	3,301	589	2,716

- (a) Out of the 627 tons of squares in the North Andaman Division 162 had deteriorated and the write down of value of such resulted in a loss of Rs. 8,361-11-9.
- (b) The continuance of the trade depression resulted in a serious drop in prices towards the close of the year. This involved writing down the value of closing stocks of scantlings so heavily that it resulted in a loss of Rs. 80,970 on the North Andaman stock of scantlings and Rs. 49,825 on the South Andamans stock. The loss on the Calcutta stock is included in the trading in that market referred to separately later. The stock there was, however, comparatively small. This result, combined with the fall in orders referred to under "Export" and consequent increase in balances, led to the decision to close the North Andaman mill and discontinue extraction there till conditions improve and effect was given to this decision early in 1931-32. Up to the time of writing this review (November 1931) the South Andaman mill has been kept fully occupied against orders and as the out-turn has improved as compared with 1930-31 the best possible arrangements have been made. Though a profit cannot be hoped for owing to the price still remaining low, it is considered that the position would be worse if the South Andaman mill were to be closed also, as there would be no receipts to set off against interest, depreciation and standing maintenance charges while a further reduction of extraction would increase the cost of the logs exported as such to the match industries. A further and serious disadvantage would be the total loss of existing markets re-entry into which may be extremely difficult if buyers had to

go elsewhere meanwhile. Closing the South Andaman mill would also involve imports for local requirements at considerably increased cost to the Public Works Department among others.

288. *Exports.*—(a) The details are as follows :—

	1930-31.			1929-30.		
	Logs. Tons.	Squares. Tons.	Scantlings. Tons.	Logs. Tons.	Squares. Tons.	Scantlings. Tons.
Calcutta . . .	6,266	2,055	1,665	6,300	2,420	2,408
Rangoon . . .	5,458	..	2	6,025	..	45
Madras . . .	3,381	..	2,761	1,629	..	1,609
London . . .	306	10	1,183	313	..	1,208
Bombay . . .	260	211	..	1,929	974	..
Dehra Dun for research	16	..	..	34	..	..
Other Ports . . .	50	..	..	8	208	62
North Andaman to South Andaman	..	..	62	53	147	71
South Andaman to North Andaman	128	..	..	..	..	..
Total . . .	15,865	2,276	5,673	16,291	3,749	5,403
	23,814			25,443		

(i) *Logs.*—The export remained practically the same. Towards the close of the year the Rangoon buyer curtailed a shipment which was diverted to Madras where purchases increased owing to the new match factory erected in 1929-30. The orders from Bombay fell off as the Company had since completed their Madras factory.

(ii) *Squares.*—Sales of timber in this form fluctuate, hence satisfactory deductions cannot be drawn from the differences in these figures. The continued drop, however, influenced the decision to close the North Andaman mill.

(iii) *Scantlings.*—The increased number of sailings to Madras to cope with log sales enabled more orders to be accepted for scantlings. Late in the year, however, orders for future shipments fell considerably and strongly influenced the decision to close the North Andaman mill, as the price in this market is better than in Calcutta chiefly due to the sales in bulk not necessitating the employment of an agent, involving agency expenses and commission.

289. *Mechanical operations on Interview Island.*—The reasons for this were given in paragraph 365 of last year's Review. The Logging Engineer arrived at the end of June 1930 and while awaiting material ordered in India proceeded with the erection of temporary quarters, preparation of tracks and the assembling of the Skidder which arrived from America. By the beginning of December it was possible to start operations, but as no one present other than the Logging Engineer had ever seen a Skidder before, training of all concerned was involved. This necessarily slowed down the output at the start, but during March 1931, 1,215 tons were extracted against an allowance of 1,000 tons per mensem adopted in the Report submitted to Government before the scheme was sanctioned. The total quantity extracted by the end of March 1931 was 2,303 tons of which 1,424 tons were transported to head-

quarters depot. This 20·489 divisor resulted in a comparatively high rate for Mechanical extraction of Rs. 20·489 per ton but it is apparent that with a steady outturn of only 1,000 tons monthly with a trained crew, the divisor for these four months would have been 4·000 tons resulting in a rate of Rs. 11·795 per ton from the total charges amounting to Rs. 47,178. The weighted average rate for the ordinary extraction in the North Andaman Division in 1930-31 was Rs. 12·131 per ton. It may therefore be held that the experiment was successful. Unfortunately, however, the decision to close the North Andaman mill temporarily has necessitated the suspension of these operations in 1931-32.

### 290. Profit and Loss Account.

(a) The results of trading in the various markets for the two years 1930-31 and 1929-30 are compared below :—

Market.	1930-31.			1929-30.		
	Logs.	Squares.	Scantlings.	Logs.	Squares.	Scantlings.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Messrs. Martin & Co.'s Agency, Calcutta.	1,42,616	75,363	—29,395	1,11,676	39,500	—34,303
Madras ..	67,595	..	5,141	32,335	..	—2,396
Rangoon ..	74,991	..	55	69,932	..	—656
Bombay ..	2,527	12,453	..	27,013	61,409	..
London ..	3,387	910	44,469	6,805	..	37,219
Local ..	18,588	321	2,623	7,835	772	11,111
Others ..	1,884	..	..	299	22,083	225
Total ..	3,11,588	89,047	22,893	2,55,895	1,23,764	11,200

The improvement was due to the following causes :—

*Logs.*—Increase in quantities sold and better average rates realised account for the improvement under this head. The better rate was due to a larger proportion of a superior species which commanded a higher price.

*Squares.*—There was a fall in the total sold.

*Scantlings.*—The increased demand for logs in Madras justified additional sailings to that port so that it was possible to accept more orders for scantlings. A larger turnover on a slightly improved price obviated a loss in that market which occurred last year.

A smaller sale of scantlings in Rangoon this year, which was of superior quality for cabinet work, resulted in a small profit. The loss last year was on comparatively small quantity of inferior quality.

The decrease in profit in the local market was due to the increased cost of production in the South Andaman Division as practically all the local sales are in this Division.

(b) The net profit of Rs. 1,98,863 is made up as follows :—

	Logs.	Squares.	Scantlings.
	Rs.	Rs.	Rs.
As detailed in clause (a) above .. ..	3,11,588	89,047	22,893
Sale of by-products of milling such as shingles, firewood and defective scantlings. (This includes value of firewood used by forest launches, debited to production costs) .. ..	..	..	52,073
	3,11,588	89,047	74,966

Less losses as under :—					Logs.	Squares.	Scantlings.
Value of timber used for repairs short debited to production costs owing to the rise in the outturn rate this year .. .. .					Rs.	Rs.	Rs.
Writes off .. .. .					5,922	83	1,637
Free Grants .. .. .					..	..	5
Conversion into Fuel .. .. .					171	..	..
Experiment as to suitability for matches .. .. .					37	..	..
Depreciation of value of closing stocks owing to fall in prices, <i>vide</i> paragraph 287 (iv) (b) .. .. .					..	..	1,30,795
Depreciation of value of closing stocks, <i>vide</i> paragraphs 285 (v) and 287 (iv) (a) above .. .. .					18,627	8,362	..
Total losses .. .. .					24,757	8,614	1,37,361
					2,86,831	80,433	—62,395
					18,038		
Net profit .. .. .					3,04,869		
Royalty on extraction by consumers less expenses on supervision thereof .. .. .					..	..	1,136
Final instalment from Messrs. Howard Brothers on clearance of old stocks in London .. .. .					..	..	18,526
Total .. .. .					..	..	3,24,531
Less Losses							
Fuel Account .. .. .					5,582		
Cost of training 2 foresters as Rangers at Dehra Dun .. .. .					5,088		
Sinking of S. L. "David" .. .. .					56,996		
Write-off of a portion of the Calcutta Yard less sale proceeds .. .. .					19,385		
Adjustment of value of 16½ tons of timber erroneously included in the opening balance of stock .. .. .					844		
Short adjustment of depreciation on 2 lighters from 1927-28—1929-30 .. .. .					3,519		
Interest on working capital .. .. .					34,123		
Miscellaneous items (net) .. .. .					131		1,25,668
							1,98,863

(1) The loss on the fuel account is due to heavy overheads. Such charges will be less in 1931-32 as an officer has returned to Burma. The sale price is high and cannot be increased.

(2) The training of the 2 foresters has since been completed, *i.e.*, at end of September 1931. Both have qualified.

(3) The Marine enquiry into the sinking of the S. L. "David" while being towed from Madras in January 1931 has been submitted to Government for final orders. It was bought from the Bombay Reclamation Trust.

(4) The write off of a portion of the Calcutta Yard was sanctioned in Government of India letter No. 1233-F., dated 26th September 1929. The increase in sales *ex-ship* necessitated keeping smaller stocks there and the surrender of the land involved has already considerably reduced the rent payable to the Port Commissioners and taxes to the Corporation.

Only the buildings thereon belong to Government.

(5) The write-off of 2 lighters (with sanction of the Chief Commissioner) disclosed the need for increasing the rate of depreciation in future. This figure represents the difference which should have been written off to production costs in the earlier years of commercialised accounts had the higher rates been in force.

(c) The net profit of Rs. 1,98,863 has accrued after adjusting the following indirect charges :—

- (i) Interest on Capital,
- (ii) Contributions for leave, passages and pension, and
- (iii) Audit fees.

In the case of a Joint Stock Company where interest is not paid to shareholders the net profit available for appropriation either to reserve or for dividends would be in the above case, the profit of Rs. 1,98,863 *plus* the interest (Rs. 1,50,993) adjusted prior thereto or Rs. 3,49,856. This figure represents 12.4% on the Government of India Capital account of Rs. 28,25,390 on 1st April 1930.

291. *Assets*.—The value of the fixed assets on 31st March 1931 totalled Rs. 22,05,988 against Rs. 20,69,435 on 31st March 1930. The principal items are as follows :—

(1) Final expenditure during the year on assets acquired in the previous year :	Rs.
(a) S. L. " Montagu Douglas "	55,293
(b) Travelling Crane North Andaman Division	1,814
(c) Electric gantry South Andaman mill	21,664
(d) Steel barge South Andaman Division	3,497
(2) Plantations	30,372
(3) Working Plan enumerations	29,597
(4) Jetty for unloading logs from the " M. Douglas " at North Andaman	17,967
(5) Boiler for North Andaman Mill	27,978
(6) Condensing plant North Andaman	9,035
(7) Steam Winch North Andaman	9,315
(8) Mechanical extraction on Interview Island	1,57,041
(9) Boiler for crane South Andaman Division	6,723
(10) Miscellaneous items	9,848
	<hr/> 3,80,144

<i>Deduct</i>	Rs.
Write-off of a portion of the Calcutta Yard	20,051
Transfer of the " Maharaja " jetty to the Public Works Department.	43,988
Elimination of value of mill building South Andaman Division as it is on the Public Works Department books and rent is now paid for it	24,433
Depreciation adjusted this year	1,55,119
	<hr/> 2,43,591

Item (8) above is subdivided as follows :—

Skidder	87,754
Light Railway	39,115
Water pump and pipe lines	11,909
Rest House	12,435
Temporary quarters for staff	3,032
Miscellaneous items	2,796
	<hr/> 1,57,041



Depreciation to the extent of Rs. 5,364 was written off therefrom by 31st March 1931.

*General Remarks.*—The results for the year may be considered to be fairly satisfactory when it is remembered how badly hit many other ventures were by the trade depression.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERICAL AUDIT.

292. The working of the Forest department resulted in a net profit of Rs. 1,98,863 during the year 1930-31 as against a profit of Rs. 3,32,426 in 1929-30. The total profits earned during the last four years during which the commercial accounts have been maintained are Rs. 8,84,270 as shown below :—

					Rs.
Profit for the 3 years ended 31st March 1930	..	..	..	..	6,85,407
Profit for the year ended 31st March 1931	..	..	..	..	1,98,863
				Total	8,84,270

As mentioned in paragraph 366 of the report for the year 1929-30, the accounts do not include any charge for royalty which any lessee will have to pay if a contract were given to exploit the forests.

293. The decrease in profits was mainly due to the following reasons :—

- (1) Fall in the export of logs,
- (2) the writing down of the value of closing stock to bring it into line with the fall in the market prices,
- (3) the writing off of the value of deteriorated stock, and
- (4) the loss of the steam tug " David ".

Apart from minor fluctuations under different expenditure heads, the only noticeable increase is under " Direct overheads ". This is due to :—

- (1) the creation of reserves for deaths of elephants, periodical overhaul of launches, and heavy repairs to mills,
- (2) the increase in interest and depreciation charges on account of additional expenditure on cranes, electric gantry and launches purchased in 1929-30,
- (3) the heavier repairs to mill and jetties in North Andamans carried out during the year 1930-31,
- (4) the charges (including interest and depreciation on plant), incurred on account of mechanical extraction at the Interview Island, and
- (5) the inclusion of interest on working capital under the direct overheads during the year 1930-31. Similar expenditure in 1929-30 was included under " other charges ".

The value of timber stock at the end of the year 1930-31 amounted to Rs. 2,43,476 as against Rs. 2,51,990 at the end of the year 1929-30. The figure Rs. 2,51,990 adopted here as well as in the accounts for 1930-31 is different from the closing balance of Rs. 2,59,291 adopted in the accounts of the year 1929-30, because Rs. 2,59,291 included a consignment of timber sent to South



Africa (valued at Rs. 7,301). This consignment has been taken under "Sundry Debtors" in the Accounts of 1930-31. This stock does not include the logs left behind in the felling areas and the Ghat depots along the sea front as they may be abandoned if not considered worth bringing out at the extra expense involved. The stock has been valued at cost or market price whichever is less.

294. The sales through Messrs. Martin and Co.'s agency at Calcutta alone resulted in a net profit of Rs. 1,88,584 during 1930-31 as against a profit of Rs. 1,16,873 in 1929-30. The better results during the year were mainly due to :—

- (1) large turnover of logs resulting in greater profit,
- (2) smaller turnover of scantlings which always resulted in a loss, and
- (3) better prices realised for squares which contained a larger quantity of padauk timber.

The results of trading in the various markets are brought out in paragraph 291 of the Chief Forest Officer's review and may be said to be generally satisfactory.

295. *Paragraph 284 of the Chief Forest Officer's review.*—The increase in the cost of extraction in South Andaman Division seems also partly due to the rates for transport allowed to contractors being higher than the departmental costs.

296. *Paragraph 289 of the Chief Forest Officer's review.*—The mechanical extraction had to be closed down by the end of March 1931 on account of trade depression. It is, therefore, difficult to say at this stage whether the investment is sound. On account of the heavy interest and depreciation charges that will be incurred even when the machinery is idle, it will involve Government in a loss until the work is restarted. An adequate appreciation of market conditions may have saved Government the locking up of these funds.

Increased extraction of timber reduces the cost of extraction per unit but increase in extractions will be unsound unless same can be reasonably absorbed by the markets. In the Chenat Nair Exploitation Division where Mechanical Extractions were tried on a large scale, a policy of large scale production with a view to reduce the cost of extraction was followed without at the same time considering the requirements of the market and as a result stocks accumulated which had to be disposed of at ridiculous prices. The concern had to be closed as it was found that mechanical extractions were unsuitable to the forests where they were tried. Whether any success could be expected in the Andamans depends upon the local conditions which probably resemble a good deal those of the Indian forests.

297. *Paragraph 291 (c) of the Chief Forest Officer's review.*—It is advanced that in the case of a joint stock company, no interest is payable to shareholders and the amount of interest would swell the profits available for appropriation as reserves or for distribution as dividends. But it should be noted that a joint stock company would have to pay royalty to Government which would probably absorb the profit earned in the accounts.

## FOREST DEPARTMENT, ANDAMANS.

298. Balance Sheet as at 31st March 1931.

31st March 1930. Rs.	Capital and Liabilities.	31st March 1931. Rs.	Property and Assets.	31st March 1931. Rs.
			<i>Fixed Assets.</i>	
	Government of India Capital Account includ- ing Reserves due to Government . . .	26,68,896	Buildings . . . . .	2,32,303
	Profit and Loss Account 1930-31 . . .	1,98,863	Calcutta Timber Yard . . . . .	26,767
	Reserves . . . . .	29,651	Roads seawalls, jetties. . . . .	59,606
1,52,368	Other liabilities . . . . .	86,731	Sawmills . . . . .	6,02,821
			Other plant and machinery—Drying kilns Charcoal kilns, creosoting and water tanks and gantries . . . . .	89,021
			Mechanical extraction at Interview Island Rest house, Skidder, Railway and bogies Firearms (guns) . . . . .	1,51,377
			Launches, lighters, boats, &c. . . . .	1,937
			Live Stock . . . . .	5,83,423
			Rolling Stock, trucks, carts and waggons . . . . .	2,85,151
			Furniture and fixtures . . . . .	2,828
			Plantations and Working plans . . . . .	7,155
				1,83,299
		29,84,121		
				22,05,988
29,77,758				

<i>Floating Assets.</i>		
Sundry stores and instruments	2,28,306	1,96,330
Stock of timber and fuel	2,73,741	2,44,754
Book debts	3,88,095	3,12,252
Deferred revenue expenditure	12,724	9,572
Sundry items	5,457	15,446
Cash in hand	..	829
Suspense	..	1,050
	Total	29,85,171
29,77,768	29,77,758	29,85,171

(Sd.) W. B. STEVENS,  
Accounts Officer,  
Forest Department, Andamans.

(Sd.) A. K. GLASSON,  
Chief Forest Officer,  
Andamans.

(Sd.) V. D. DANTYAGI,  
Assistant Director of Commercial Audit,  
Burma Circle.



To Charges on timber sold or consigned				Total	22,83,875	22,13,577	Total	22,13,577
3,75,462	Freight, insurance, &c.	..	3,32,778	..	..	22,13,577	..	22,13,577
4,251	Home broker's commission	..	4,911	..	..	..	..	..
46,781	Martin and Co.'s commission	..	40,351	..	..	..	..	..
9,136	Sundry charges	..	12,470	..	..	..	..	..
	To Other charges including loss of Tug							
68,172	"David"	..	96,309	..	..	..	..	..
3,32,426	To Profit	..	1,98,863	..	..	..	..	..
22,83,875	Total	..	22,13,577	..	..	22,13,577	..	22,13,577





## FOREST DEPARTMENT, ANDAMANS.

## 301. Summary of Stock Account 1930-31.

1929-30.			1930-31.		
Logs.	Squares.	Scantlings.	Logs.	Squares.	Scantlings.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Receipts.</i>					
2,090	1,097	1,874	Opening Stock on hand	2,774.47	239.34
					†268.25
					*2,601.56
330	971	413	Opening Stock with Messrs. Martin & Co., Calcutta	299.75	96.00
..	..	..	In transit on 1st April 1930	495.36	50.61
..	..	..	Departmental extraction and contractors' supplies delivered at sale depots	45,746.35	..
22,555	..	..	..	..	..
..	3,073	7,875*	Sawn timber outturn during the year	2,767.51	7,827.00
		167†	..		
312	15	47	Surplusses, Remeasurement gain and other Sundry receipts	34.16	0.32
					40.78
49,287	5,156	10,376	Total	49,050.34	3,357.53
					10,565.34
<i>Disposals.</i>					
25,648	..	..	Issues to mill for conversion	27,500.14	..
1,629	..	1,609	Sales at Madras	3,380.96	2,760.73
6,025	..	45	Sales at Rangoon	5,458.10	1.46
1,929	974	..	Sales at Bombay	260.39	211.10
5,836	2,843	2,770	Sales by Messrs. Martin and Co., Calcutta	4,987.76	1,752.74
313	..	1,208	Sales at London	306.26	10.04
8	208	62	Sales at other markets	49.98	..
468	8	1,010	Local Sales	1,237.82	6.92
461	168	668	Timber used departmentally	206.80	103.62
34	..	15	Free grants, samples sent to Dehra Dun, &c.	22.67	0.17
3,874	70	21	Losses written off on account of deterioration, shortages, and remeasurement losses	336.32	81.31
..	147	2	Other adjustments	..	16.52
<i>Closing Stocks.</i>					
2,627	387	2,620*	On hand	3,302.10	645.51
		250†	..		†301.07
..	300	96	With Messrs. Martin & Co., Calcutta	1.04	346.29
495	61	..	In transit on 31st March 1931	..	97.98
					75.03
49,287	5,156	10,376	Total	49,050.34	3,357.53
					10,565.34

\*Good

†Defective.

NOTE.—148 tons logs have been included in squares in closing stock on 31st March 1930 and 18 tons defective (wrongly) scantlings shown as good scantlings.

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## CHAPTER V.

## Government of India—Commerce Department Concerns.

## BENGAL PILOT SERVICE.

FINANCIAL REVIEW BY THE PAY AND ACCOUNTS OFFICER, MISCELLANEOUS CENTRAL DEPARTMENT (COUNTERSIGNED BY THE PRINCIPAL OFFICER, MERCANTILE MARINE DEPARTMENT, CALCUTTA DISTRICT) ON THE COMMERCIAL ACCOUNTS FOR THE YEAR 1930-31.

**302. Preliminary.**—This is the Third Report on the Commercial Accounts of the Bengal Pilot Service. Orders have been received from the Government of India on all points referred to in the previous Reports and the accounts of the two previous years have been revised in accordance with the final orders. The accounts of the year under review have also been prepared accordingly and the Profit and Loss statement and Balance Sheet for 1930-31 will not be subject to revision as in the past.

**303. Financial result.**—The net financial result for the year 1930-31 is a deficit of Rs. 1,58,044-13-7. Previously there were surpluses of Rs. 55,790-15-4 in the year 1928-29, and of Rs. 7,038-8-6 in 1929-30.

The deficit for the year under review is due to a large decrease in the pilotage receipts, as compared with the last two years, owing to the general trade depression.

**304. Income and Expenditure Account.**—Pilotage Receipts Rs. 16,26,234-9-0.

The amount represents pilotage fees, night navigation fees, leadsmen's fees and detention allowances to pilots billed for during the year 1930-31.

The figures for the previous two years were as follows :—

						Rs.	a.	p.
1928-29	..	..	..	..	..	18,87,218	6	0
1929-30	..	..	..	..	..	18,83,104	4	0

The fall in the pilotage fees receivable during the year 1930-31 is Rs. 2,60,983-13-0 and Rs. 2,56,869-11-0 as compared with the dues billed for during 1928-29 and 1929-30 respectively. The decrease may be attributed to a smaller number of vessels entering and leaving the port during the year owing to trade depression.

**305. Miscellaneous Receipts.**—Rs. 22,601-10-0.

The following special items are included under this head :—

- (a) Rs. 12,618-8-0 on account of recoveries made from the pay and allowances of pilots towards the Marine Family Pension Fund.

The figures for the preceding years were as follows :—

						Rs.	a.	p.
1928-29	..	..	..	..	..	11,813	5	0
1929-30	..	..	..	..	..	12,915	14	0

- (b) Rs. 8,437-5-6 representing amount realised from the British India Steam Navigation Company on account of pay for special pilots for the Rangoon Mail Steamer.

(c) Rs. 151-8-3 (equivalent of £11-4-6 converted @ 1s. 5·78d) as intimated by the High Commissioner for India in his letter No. A. R.-22579/R., dated 30th April 1931 as "Miscellaneous" receipts.

**303. Stores Consumed.**—Rs. 1,33,345-8-9.

The figure has been arrived at as shown below:—

	Coal.			Provisions.			Other Stores.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Opening Balance .. .. .	8,929	2	0	428	0	0	10,500	0	0
Purchases .. .. .	66,887	6	0	22,625	4	9	38,564	12	0
	75,816	8	0	23,253	4	9	49,064	12	0
Less closing Balance .. .. .	8,251	0	0	831	0	0	5,707	0	0
Stores consumed .. .. .	67,565	8	0	22,422	4	9	43,357	12	0

The value of stores consumed during the years 1928-29 and 1929-30 was Rs. 1,40,657-6-6 and Rs. 1,43,490-2-6 as detailed below:—

	Coal.			Provisions.			Other Stores.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1928-29 .. .. .	71,249	0	0	24,581	3	8	44,827	2	10
1929-30 .. .. .	68,746	3	0	24,183	11	2	50,560	4	4
Total for 1928-29 .. .. .					1,40,657	6	6		
Total for 1929-30 .. .. .					1,43,490	2	6		

The decrease in the value of stores consumed is due to economy.

**307. Salaries and Allowances of Pilots.**—Rs. 6,91,794-5-0.

Expenditure under this head for 1929-30 amounted to Rs. 7,47,586-9-0. The decrease for the year is mainly due to a number of pilots proceeding on leave during the year.

**308. Salaries and Allowances of Establishment.**—Rs. 67,252-15-0.

The amount includes Rs. 9,890-4-0 representing one half of the cost of the establishment of the office of the Principal Officer as prescribed under rule 8B of the Accounting Rules.

The charges for the year 1928-29 and for the year 1929-30 under the head were Rs. 67,598-3-0 and Rs. 68,711-8-6, respectively.

**309. Miscellaneous Expenditure including Contingencies.**—Rs. 28,382-8-4.

The following special charges have been included under the head:—

(a) Rs. 2,775-1-5 on account of  $\frac{1}{4}$  share of the running expenses of the Principal Officer's launch.

(b) Rent of Leadsman's quarters amounting to Rs. 1,610-11-0 calculated in accordance with the Government of India, Commerce

Department letter No. 207-P. & L. (9)/30, dated 13th December 1930.

	Rs.	a.	p.
Owners taxes (actual) .. .. .	1,332	11	0
Cost of repairs (actual) .. .. .	129	0	0
Contribution to Depreciation Fund .. .. .	149	0	0
	<hr/>	<hr/>	<hr/>
	1,610	11	0

A sum of Rs. 20,077 representing charges for the rent of the Quarters from 1st April 1927 to 31st March 1931 as detailed in the margin has been credited to the Government of Bengal by the Central Government, adjusted in the Government books (*vide* Government of India, Commerce Department No. 217-P. & L. (9)/30, dated 2nd March 1931), which has not, however, been taken into account in the commercial books in view of the fact that charges on account of rent have already been debited against the service under the Government of India orders (Government of India, Commerce Department letter No. 207-P. & L. (9)/30, dated 13th December 1930).

	Rs.	a.	p.
1927-28 .. .. .	3,204	0	0
1928-29 .. .. .	5,168	0	0
1929-30 .. .. .	4,601	0	0
1930-31 .. .. .	7,104	0	0
	<hr/>	<hr/>	<hr/>
	20,077	0	0

The rent for 1928-29 and 1929-30 as per commercial books amounted to Rs. 5,382 and Rs. 2,085, respectively.

(c) A sum of Rs. 2,795-4-0 representing rent for accommodation provided in the Port and Shipping Office Building as intimated by the Principal Officer, Mercantile Marine Department, Calcutta District, in his letter No. 4487, dated 30th June 1931.

(d) Expenses connected with recruitment amounting to Rs. 255-15-5, equivalent of £18-19-3 (converted @ 1s. 5·78*d.*) as intimated by the High Commissioner for India in his letter No. A.R.-22579/R., dated 30th April 1931.

### 310. Stationery and Printing.—Rs. 597-4-0.

The amount is made up of Rs. 246 representing the cost of stationery and forms supplied and Rs. 322 on account of printing work done by other Government Departments as intimated in the Principal Officer's letter No. 4487, dated 30th June 1931, and Rs. 29-4-0 on account of the cost of stationery purchased in cash.

311. Leave and Deputation Salaries .. .. . Rs. 1,49,333-7-5

Overseas Pay .. .. . Rs. 1,50,489-5-11

The amounts represent payments made in England for the Bengal Pilot Service as intimated by the High Commissioner for India in his letters Nos. A.R.-22579/R., dated 30th April 1931 and A.R.-23492/R., dated 29th June

1931 converted @ 1s. 5·78d., the average rate of exchange for the year 1930-31, as furnished by the Controller of the Currency in his letter No. B. & R.-879, dated 27th May 1931.

(a) The details of Rs. 1,49,333-7-5 are as follows:—

*Central—*

				Rs.	a.	p.
Leave salaries (Voted) £26-19-2	..	..	..	363	14	3
Leave salaries (Non-voted) £10,811-8-3	..	..	..	1,45,935	13	3

*Provincial—*

Leave salaries (Non-voted) £224-15-0	..	..	..	3,033	11	11
				1,49,333	7	5

(b) The amount of Rs. 1,50,489-5-11 is made up of—

*Central—*

				Rs.	a.	p.
(Non-voted) £10,481-15-10	..	..	..	1,41,486	8	0
(Voted) £666-19-3	..	..	..	9,002	13	11
				1,50,489	5	11

The expenditure under these heads for the last two years are shown below:—

			1928-29.			1929-30.		
			Rs.	a.	p.	Rs.	a.	p.
Leave and Deputation Salaries	..	..	1,51,037	0	0	1,32,199	7	11
Overseas Pay	..	..	1,37,126	0	0	1,53,620	8	7

**312. Pensions of Officers of the Bengal Pilot Service.**—Rs. 1,73,820.

The amount represents actuarial liability in respect of pensionary charges of pilotage and non-pilotage establishment debited to the pro-forma accounts under instructions of the Government of India as conveyed in their Commerce Department letter No. 207-P. & L (9)/30, dated 13th December 1930.

Actual payments for pensions during the year are as shown below:—

*Payments made in England.*

*Central—*

				Rs.	a.	p.
Central (Non-voted) £3,615-1-4 converted @ 1s. 5·78d.	=			48,797	4	10
Central (Voted) £206-9-0 converted @ 1s. 5·78d.	..	=		3,632	8	1

*Provincial—*

Provincial (Non-voted) £7,240-0-0 converted @ 1s. 5·78d.				97,733	1	8
Provincial (Voted) £879-15-7 converted @ 1s. 5·78d.	=			11,875	8	6
Payments made in India (Bengal) as intimated by the Accountant General, Bengal	..	..	..	545	10	0
				1,62,587	1	1



**313. Pensions of Widows and Families of Officers of the Bengal Pilot Service.**  
—Rs. 49,769-7-11.

	Rs.	a.	p.
Payments made in England (intimated by the High Commissioner for India in his letter No. A. R. 22579/R., dated 30th April 1931, amounted to £3,652-5-5 converted @ 1s. 5.78d. .. .. . =	49,299	7	11
Payments made by Accountant General, Bengal .. .. . =	470	0	0
	49,769	7	11

The expenditure under this head during the preceding two years are shown below :—

	Rs.	a.	p.
1928-29 . . . . .	51,160	5	5
1929-30 . . . . .	50,806	6	11

**314. Pensinary Contribution in respect of the Port Office, etc., Staff** . . . . . Rs. a. p.  
1,118 8 0

The amount has been calculated on the share of the pay charges of the staff of the Port Office and of Steam launch "Isabel" chargeable to the Bengal Pilot Service under Rule 8B(a) 5 and 6 of the Accounting Rules.

**315. Passage Contribution** . . . . . Rs. a. p.  
26,194 11 3

The contribution on account of passages is calculated @ Rs. 50 per month in respect of each officer of the Bengal Pilot Service entitled to passage concessions. The following statement shows the actuals and contributions for the three consecutive years :—

	1928-29.	1929-30.	1930-31.
Actuals . . . . .	49,063 10 8	30,817 10 0	35,615 13 8
Contribution . . . . .	27,606 10 0	26,685 3 5	26,194 11 3

**316. Interest** . . . . . Rs. a. p.  
208 6 11

Interest has been charged on the credit balance of the "Realised Surplus or Deficiency Account" as on 31st March 1930, calculated in accordance with the Appendix to the Government of India, Commerce Department letter No. 207-P. and L./31, dated 24th July 1931 at the rate of 5.67 per cent. (the rate applicable to Capital Expenditure of the Central Government) as furnished in Auditor General's letter No. 486-Comp./66-31, dated 31st August 1931.

**317. Depreciation Accounts** . . . . . Rs. a. p.  
23 6 0

The amount of depreciation has been charged on the wireless assets taken over by the service during 1928-29 at a cost of Rs. 1,500, the valuation of which as on 31st March 1931 has been reported by Principal Officer, Mercantile Marine Departments as Rs. 1,476-10-0 (*vide* his letter No. 4487, dated 30th June 1931).



## BALANCE SHEET.

Rs. a. p.

318. *Pilot Vessels and Launch* . . . . . 7,35,000 0 0

The replacement value of the two pilot vessels and the steam launch "Aid" as on 1st April 1928 has been fixed by the Government of India at Rs. 7,35,000 (*vide* paragraph 392 of the last year's review).

Rs. a. p.

319. *Additions to Plant, Machinery and Equipment* . 1,476 10 0

The wireless assets purchased during the year 1928-29 at Rs. 1,500 has been revalued at Rs. 1,476-10-0 as on 31st March 1931 by the Principal Officer, Mercantile Marine Departments (*vide* his letter No. 4,487, dated 30th June 1931).

Rs. a. p.

320. *Furniture* . . . . . 1,802 8 0

This is a constant figure for the last three years. The value of the assets has been certified by the Principal Officer, to be more or less constant.

Rs. a. p.

321. *Consumable Stores* . . . . . 14,789 0 0

The valuation was made by the Principal Officer, Mercantile Marine Departments at the market rate. The details are as shown below :—

	On Board the S. P. V. "Lady Fraser".	On Board the S. P. V. "Andrew".	On Board the S. L. "Aid".
Coal . . . . .	6,747 0 0	1,504 0 0	Nil.
Provisions . . . . .	389 1 6	441 14 6	Nil.
Other Stores . . . . .	2,242 9 0	3,464 7 0	Nil.

The S. L. "Aid" was under repairs on 31st March 1931.

The balance of Stores as on 31st March 1931 was verified by actual count and a certificate to that effect furnished.

The balances of Stores on board the vessels and the S. L. "Aid" as on 31st March 1929 are as follows :—

	On Board the S. P. V. "Lady Fraser".	On Board the S. P. V. "Andrew".	On Board the S. L. "Aid".
Coal . . . . .	7,562 4 0	1,344 6 0	22 8 0
Provisions . . . . .	231 13 0	196 3 0	Nil.
Other Stores . . . . .	7,210 0 0	3,290 0 0	Nil.

Rs. a. p.

322. *Sundry Debtors* . . . . . 1,50,408 11 0

This represents pilotage dues outstanding on 31st March 1931, which have since been duly recovered and credited to Government.

	Rs.	a.	p.
<b>323. Depreciation Reserve Fund with Government Account</b> . . . . .	1,91,248	2	11
Heavy Repairs Reserve Fund . . . . .	1,71,496	14	1

The amounts equal to the balance under the "Reserve" heads have been taken out of the "Government of India Capital Account" and shown separately as assets of the concern as desired by the Director of Commercial Audit.

	Rs.	a.	p.
<b>324. Deficit</b> . . . . .	95,215	5	9

This is the difference between the accumulated "Surplus" for the years 1928-29 and 1929-30 and the deficit for the year 1930-31.

	Rs.	a.	p.
<b>325. Sundry Creditors</b> . . . . .	76,024	0	0

The amount represents pay of pilots, etc., and cost of Stores supplied which have been paid in the following year. A sum of Rs. 74-3-0 due to the "Mess Committee" is also included under the head.

	Rs.	a.	p.
<b>326. Depreciation Reserve Account</b> . . . . .	1,91,248	2	11

The amount has been arrived at as shown below :—

	Rs.	a.	p.
Opening Balance . . . . .	1,23,624	14	9
Add Contribution for the year . . . . .	59,196	0	0
Add Interest at $5\frac{1}{2}$ per cent. . . . .	8,427	4	2
	<u>1,91,248</u>	<u>2</u>	<u>11</u>

Interest has been charged at one per cent. less than the rate of interest chargeable on advances to the Provincial Loans Fund during the year 1930-31 (the rate of interest as furnished in the Government of India, Finance Department No. D./3343-F., dated 30th May 1931) under instructions of the Government of India conveyed in their Commerce Department letter No. 207-P. and L./31, dated 24th July 1931.

	Rs.	a.	p.
<b>327. Heavy Repairs Reserve</b> . . . . .	1,71,496	14	0

The figure has been arrived at as shown below :—

	Rs.	a.	p.
Opening Balance . . . . .	1,01,198	7	5
Add Contribution . . . . .	63,000	0	0
Add Interest at $5\frac{1}{2}$ per cent. . . . .	7,298	6	8
	<u>1,71,496</u>	<u>14</u>	<u>1</u>

Interest has been charged on the mean between the opening and closing balances of the Reserve Account at one per cent. less than the rate chargeable on advances to the Provincial Loans Fund during 1930-31 (*Vide* remarks under Depreciation Reserve above).

No expenditure for Heavy Repairs was made during the year under review.

Rs.   a.   p.

328. *Realised surplus or Deficiency Account* . . . 1,32,655 10 1

This deficiency has been calculated in accordance with the Appendix to the Government of India, Commerce Department letter No. 207-P. and L./31, dated 24th July 1931, as shown in the statement below :—

*Realised Surplus or Deficiency Account for the year 1930-31.*

Particulars.	1930-31.		
	Rs.	a.	p.
(a) <i>Receipts</i> :—Balance of previous year . . . . .	—3,676	1	6
<i>Add</i> Actual remittances into Treasury . . . . .	17,04,390	4	0
	17,00,714	2	6
(b) <i>Expenditure</i> :—			
(i) Stores . . . . .	1,32,165	5	0
(ii) Salaries and Allowances of Pilots . . . . .	6,96,519	7	0
(iii) Salaries and Allowances of Officers . . . . .	1,12,070	7	0
(iv) Allowances to Leads-men . . . . .	38,338	13	0
(v) Salaries and Allowances of Establishment . . . . .	67,422	1	0
(vi) Allowances to Port Commissioners for collecting pilotage bills . . . . .	4,700	0	0
(vii) Victualling allowances of officers and men afloat . . . . .	9,786	14	0
(viii) Miscellaneous Expenditure including contingencies . . . . .	28,743	8	4
(ix) Ordinary repairs to and Maintenance of Pilot Vessels . . . . .	42,862	7	10
(x) Stationery and Printing . . . . .	597	4	0
(xi) Leave and Deputation Salaries . . . . .	1,49,333	7	5
(xii) Overseas Pay . . . . .	1,50,489	5	11
(xiii) Pensions of Widows and Families of the officers of Bengal Pilot Service . . . . .	49,769	7	11
(xiv) Annual Contribution on account of Pensionary charges of Pilotage and non-pilotage Establishment . . . . .	1,73,820	0	0
(xv) Audit Fees . . . . .	5,100	0	0
(xvi) Annual contribution to Depreciation Reserve Fund . . . . .	59,196	0	0
(xvii) Annual contribution to Heavy Repairs Reserve Fund . . . . .	63,000	0	0
(xviii) Contribution on account of Passages . . . . .	26,194	11	3
(xix) Pensionary contribution in respect of Port Office, etc., staff . . . . .	1,118	8	0
(xx) Interest . . . . .	208	6	11
(xxi) Mess Money . . . . .	21,933	10	0
	18,33,369	12	7
<b>Balance (Deficiency)</b> . . . . .	1,32,655	10	1

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

**329. Paragraph 302 of the Financial Review.**—In accordance with the Government of India orders referred to in this paragraph the accounts of the years 1928-29 and 1929-30 (appearing under paragraphs 398 and 399 of the 1929-30 Appendix) have been revised and the items affected thereby are as follows :—

- (a) The surplus for the year 1929-30 has been reduced by Rs. 1,502-8-2 due to interest amounting to Rs. 1,277 on the balance of the "Realised Surplus or Deficiency Account" being charged to the service.
- (b) Interest for 1929-30 as revised has been calculated on the balance of "Realised Deficiency" as at 31st March 1929 at 5·31 per cent. (the average rate of interest applicable to Capital Expenditure for 1929-30).
- (c) Interest on Depreciation and Heavy Repairs Reserves has been calculated on the mean between the opening and closing balances at 4 per cent. and  $4\frac{1}{2}$  per cent. for the years 1928-29 and 1929-30 respectively (these rates being 1 per cent. less than those charged on advances made to the Provincial Loans Fund).
- (d) The "Government of India Capital Account" as previously shown in the Balance Sheet has now been split up as follows :—
  - (I) Opening Capital (as at 1st April 1928) of the Service has been shown against the Government of India Capital Account.
  - (II) Balance of the Income and Expenditure Account has been shown separately.
  - (III) Amounts equal to the balances of the Reserves have been exhibited on the assets side as "Funds with Government".
  - (IV) The balance of the Realised Surplus or Deficiency account has been shown separately.

In the accounts for the year 1930-31 included in this Appendix the revised figures for the year 1929-30 have been shown.

**330. Paragraphs 303 and 304 of the financial review:**—The working results of the year 1930-31 compare as follows with the year 1929-30 :—

	1929-30.	1930-31.	Decrease(—) or Increase (+).
	Rs.	Rs.	Rs.
1. Direct charges . . . . .	17,41,432	16,52,040	89,392 (—)
2. Indirect charges . . . . .	1,56,935	1,54,841	2,094 (—)
Total Expenditure . . . . .	18,98,367	18,06,881	91,486 (—)
Total Pilotage and Miscellaneous Receipts . . . . .	19,05,406	16,48,836	2,56,570 (—)
Surplus (+) Deficiency(—) . . . . .	+7,039	—1,58,045	—1,65,084

## THE BENGAL PILOT SERVICE.

## 331. Balance sheet as on 31st March 1931.

Liabilities.		Assets.	
As at 31st March 1930.		As at 31st March 1930.	
As at 31st March 1931.		As at 31st March 1931.	
<b>Sundry Creditors—</b>		<b>Pilot Vessels and launch (in-</b>	
For Stores . . . . .	4,209	cluding Plant, machinery	
„ Salaries, etc., outstanding	81,387	and equipment)	7,35,000
		Additions to Plant, Machin-	
<b>Depreciation Reserve for Wast-</b>		ery and equipment . . . .	1,500
<b>ing Assets—</b>		Less Depreciation . . . .	23
Opening Balance . . . . .	60,380		
Contribution . . . . .	59,196	<b>Furniture</b> . . . . .	1,803
Interest . . . . .	4,049	<b>Consumable Stores—</b>	
		Coal . . . . .	8,929
<b>Heavy Repairs Reserve—</b>		Provisions . . . . .	428
Opening Balance . . . . .	64,260	Other Stores . . . . .	10,500
Contribution . . . . .	63,000		
Interest . . . . .	3,641	<b>Sundry Debtors—</b>	
		Chief Accountant, Port Com-	
<b>Less Expenditure . . . . .</b>	<b>1,30,901</b>	missioners, Calcutta . . .	1,83,955
	29,703	Depreciation Reserve Fund	
<b>Realised Surplus or deficiency</b>		with Government Account	1,23,625
Account (Deficiency) . . . .	..	Heavy repairs Reserve Fund	
Government of India Capital		with Government Ac-	
Account—		count . . . . .	1,01,198
Opening Balance on 1st Ap-		Balance of Income and Ex-	
ril 1928.		penditure Account—	
Surplus for the years—		Deficit for the years working	1,58,045
1928-29 . . . . .	55,791	Less Opening Balance as	62,830
1929-30 . . . . .	7,039	on 1st April 1930. (Sur-	
		plus) . . . . .	95,215
<b>Total</b> . . . . .	<b>11,66,938</b>		<b>11,66,938</b>
			<b>13,61,437</b>

Certified that the figures for 1930-31 have been reconciled with those in the Government Accounts.

(Sd.) K. M. SUBRAMANIAM, (Sd.) A. N. GREEN,

for Assistant Director of Commercial Audit, Pay and Accounts Officer,

Calcutta, Circle II.

Miscellaneous Central Department.

Principal Officer, Mercantile Marine Department,

Calcutta District.

(Sd.) C. A. SCOTT,

Captain R.I.M.,

Principal Officer, Mercantile Marine Department,

Calcutta District.



## THE BENGAL PILOT SERVICE.

## 332. Income and Expenditure Account for the year ended 31st March 1931.

Expenditure.	For the year 1929-30.	For the year 1930-31.	Income.	For the year 1929-30.	For the year 1930-31.
To Stores consumed—					
Coal	68,746	67,566	By Pilotage Receipts	.	18,83,104
Provisions	24,184	22,422	„ Miscellaneous	.	22,602
Other Stores	50,560	43,358	„ Deficit	.	23,302
		1,43,490		.	1,58,045
By Pilotage Receipts					
„ Miscellaneous					
„ Deficit					
Salaries and Allowances of					
Pilots	7,47,587	6,91,794			
„ Salaries and allowances of					
officers	1,11,437	1,11,958			
„ Allowances to Leads men	48,327	37,981			
„ Salaries and Allowances of					
Establishment	68,712	67,253			
„ Allowances to Port Com-					
missioners for collect-					
ing Pilotage bills	4,700	4,700			
„ Victualing allowances of					
officers and men afloat	10,651	9,754			
„ Miscellaneous expenditure					
including contingencies	33,421	28,383			
„ Ordinary repairs to and					
maintenance of Pilot					
Vessels	62,279	42,862			
„ Stationary and Printing	382	597			
„ Leave and Deputation					
Salaries	1,32,199	1,49,333			
„ Overseas Pay	1,53,621	1,50,459			
„ Pensions of officers of the					
Bengal Pilot Service	1,73,820	1,73,820			
„ Pensions of widows and					
families of officers of					
Bengal Pilot Service	50,806	49,770			
	15,97,942	15,18,694			



<i>Indirect Charges.</i>			
" Audit Fees . . . . .	5,000	5,100	
" Contribution towards Depreciation Reserve . . . . .	59,196	59,196	
" Contribution towards Heavy Repairs Reserve . . . . .	63,000	63,000	
" Pensionary contributions in respect of Port Office, etc., Staff . . . . .	1,777	1,119	
" Passage contributions . . . . .	26,685	26,195	
" Interest . . . . .	1,277	208	
" Depreciation Account . . . . .	..	23	
" Surplus . . . . .	7,039	1,63,974	1,54,841
Total . . . . .	19,05,406	18,06,881	19,05,406 18,06,881

## LIGHTHOUSE DEPARTMENT.

FINANCIAL REVIEW BY THE ASSISTANT SECRETARY TO THE GOVERNMENT OF INDIA, COMMERCE DEPARTMENT, ON THE ACCOUNTS OF THE YEAR 1930-31.

333. The following accounts are affixed :—

- (a) The Balance Sheet as on the 31st March 1931.
- (b) The Income and Expenditure Account for the year 1930-31.

334. It will be observed that the net receipts from lightdues during the year under review, after deducting the expenditure on refunds, amounted to Rs. 11,76,294-7-4. Taking into account the sum of Rs. 56,387-13-0, being the contributions received from other Governments, etc., for the work done by the Lighthouse Department on their behalf, and the miscellaneous receipts to the extent of Rs. 11,608-6-0, the total receipts amounted to Rs. 12,44,290-10-4. Against this the total revenue expenditure, including the indirect charges, such as, the contributions to the Depreciation and the Additions and Replacements Reserve Funds, amounted to Rs. 9,56,548-13-8. Thus the surplus of receipts over expenditure for the year which has been transferred to the General Reserve Fund of the Lighthouses and Lightships Department amounted to Rs. 2,87,741-12-8 as against Rs. 5,63,263-11-10 in 1929-30.

335. The following are the main causes of the fall in the net surplus for the year under review as compared with that for the previous year :—

- (i) Reduction in the receipts from lightdues on account of general trade depression and the reduction in the rate of lightdues from 3 pies to 1 pie per ton in the case of ships touching at Aden and/or Perim and not proceeding to any other port in British India—Rs. 1,63,500.
- (ii) Cost of repairs to the lighthouse buildings in the Rangoon District during the years 1929-30 and 1930-31, which was previously charged to the head “41-Civil Works (Central)”—Rs. 34,900.
- (iii) Increase in the expenditure on the pay of officers and establishment due to increase in the strength of the staff at Headquarters—Rs. 25,300.
- (iv) Special repairs to the Lightvessel “Sindhi” in the Karachi District—Rs. 22,600.
- (v) Increase in the contribution for the work done by the Principal Officers and their staff based on the work done by these officers—Rs. 18,300.
- (vi) Commission to the Customs Department for the work done by the Collectors of Customs in respect of the years 1929-30 and 1930-31, the decision on that point having been taken after the close of the former year—Rs. 11,500.
- (vii) Increase in the contribution to the Depreciation and the Additions and Replacements Reserve Funds as a result of the acquisition of new fixed assets—Rs. 15,200.

336. There are increases of Rs. 22,832 and Rs. 7,312 respectively, under the heads "Contribution" and "Miscellaneous Receipts", as compared with the receipts under these heads for the previous year. The increase under the former head is due chiefly to the contributions received from the Local Light-house authorities in Burma on account of the cost of Relief Reserve and leave salary of the staff of the Central Government employed at some of the local lights in the Rangoon District. The Increase under the latter head is due to a larger balance standing at the credit of the Depreciation Reserve Fund and consequently an increase in the amount of interest earned thereon.

337. The total capital expenditure during the year 1930-31 amounted to Rs. 1,86,952-11-3, out of which expenditure to the extent of Rs. 88,683 was met from the Additions and Replacements Reserve Fund and the balance of Rs. 98,269-11-3 was charged to the General Reserve Fund.

338. The General Reserve Fund and also the Depreciation and the Additions and Replacements Reserve Funds have been invested with Government and are earning interest at the prescribed rate. The balances in these Funds as on the 31st March 1931 stood at—

	Rs.	a.	p.
(i) General Reserve Fund Investment Account . . . . .	15,47,712	1	4
(ii) Depreciation Fund Investment Account . . . . .	2,21,948	0	0
(iii) Additions and Replacements Fund Investment Account . . . . .	86,787	1	0

339. The following rates of lightdues were in force during the year 1930-31 :—

- |  |                                      |
|--|--------------------------------------|
| (a) All ships, other than sailing ships, arriving at, or departing from, any port in British India, except the vessels mentioned in (b) below. | One anna and six pies per ton.       |
| (b) Ships, other than sailing ships, calling at Aden and/or Perim and not proceeding to another port in British India.                         | One pie per ton.                     |
| (c) Sailing ships . . . . .  | Half the rates in (a) and (b) above. |

The above rates were revised from April 1931 as shown below :—

- |  |                                      |
|--|--------------------------------------|
| (a) All ships, other than sailing ships, arriving at, or departing from, any port in British India, except the vessels mentioned in (b) below. | One anna and four pies per ton.      |
| (b) Ships, other than sailing ships, calling at Aden and/or Perim and not proceeding to another port in British India.                         | One pie per ton.                     |
| (c) Sailing ships . . . . .  | Half the rates in (a) and (b) above. |

## 340. Balance Sheet of the Lighthouses Department as at 31st March 1931.

Liabilities.	Headquarters		Dis-		Madras District.		Bombay District.		Karachi District.		Aden District.		Calcutta District.		Rangoon District.		Total.
	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	
Sundry Creditors	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Depreciation Reserve	5,602	5,654	4,311	5,819	1,008	1,078	1,474	1,552	3,149	3,666	1,991	2,034	..	..	..	..	Rs.
Additions and Replacements Reserve	1,07,555	2,21,948	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Rs.
	82,130	1,75,470	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Rs.
<b>Government Account.</b>																	
Opening Balance on 1st April 1930	..	14,377	..	1,82,403*	..	2,61,379*	..	23,916*	..	1,46,336*	..	2,79,848*	..	3,56,994*	..	..	5,42,511*
Add—Amount received from the Government during the year	3,27,924	12,47,256	85,324	87,751	42,063	68,493	61,814	85,611	45,269	50,294	39,017	72,303	5,09,794	4,20,866	11,71,205	20,32,549	Rs.
	3,27,924	12,61,602	85,324	94,652*	42,063	1,92,887*	61,814	61,695	45,269	96,042*	39,017	2,07,539*	5,09,794	7,57,861	11,71,205	14,90,038	Rs.
<b>Debit—Payments to the Government during the year</b>	3,13,547	2,00,469	2,67,727	2,44,005	3,09,443	2,61,887	85,730	80,621	1,91,605	1,44,016	3,18,864	2,65,610	2,23,800	2,94,744	17,13,715	14,61,352	Rs.
	14,377	10,61,133	1,82,403*	3,38,657*	2,61,380*	4,54,774*	23,916*	18,926*	1,46,336*	2,40,058*	2,79,847*	4,73,149*	3,36,994	4,93,117	5,42,510*	28,686	Rs.
<b>General Reserve Account.</b>																	
Opening Balance	9,76,597	7,74,936	7,02,801	9,37,887	1,84,008	3,99,356	3,59,455	3,76,907	1,10,388	2,62,750	1,13,214	4,02,066	26,80,467	20,00,981	51,30,960	58,14,443	Rs.
Add—Interest accrued for the year 1929-30	49,635	..	..	..	..	..	..	..	..	..	..	..	..	..	49,635	..	Rs.
Debit—Deficiency during the year 1930-31	3,78,601	..	..	1,71,242	2,29,640	..	1,358	1,358	1,358	94,357	1,03,385	1,03,385	..	20,923	2,87,742	..	Rs.
Add—Surplus	3,27,820*	..	1,86,187	..	2,66,348	..	17,421	..	1,52,361	94,357	2,88,852	..	19,086*	..	5,66,264	..	Rs.
	6,98,413	3,96,395	9,45,988	11,08,629	3,99,356	6,23,996	3,76,906	3,75,549	2,62,749	3,57,107	4,02,066	5,95,451	26,61,381	26,40,058	57,49,359	61,02,185	Rs.
<b>Grand Total</b>	9,08,077	18,60,600	7,70,896	7,75,791	1,98,984	1,75,300	3,54,404	3,58,175	1,19,563	1,20,715	1,24,210	1,24,336	29,98,375	31,51,827	54,14,570	65,60,744	Rs.

\*Represents minus figures.

Assets.	Headquarters District.		Madras District.		Bombay District.		Karachi District.		Aden District.		Calcutta District.		Rangoon District.		Total.		
	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	1929-30.	1930-31.	
Lands	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Buildings other than Lighthouses	..	..	15,268	15,268	701	411	747	747	29,800	29,800	10,600	10,600	7,21,600	7,21,600	10,70,200	10,70,200	
Lighthouses	..	..	2,15,500	2,15,500	69,000	72,695	29,700	29,700	32,700	32,700	43,200	43,200	8,03,200	8,03,200	12,10,600	12,10,600	
Lightvessels	..	..	..	..	..	..	1,26,100	1,26,100	..	..	4,100	4,100	10,12,113	11,20,132	11,42,413	12,50,332	
Fog Signals	..	..	..	..	..	..	..	..	..	..	..	..	58,570	58,570	58,570	58,570	
Buoys	..	..	..	..	..	..	..	..	..	..	..	..	11,200	11,200	11,200	11,200	
Beacons	..	..	..	..	..	..	1,600	1,600	..	..	..	..	1,600	1,600	1,600	1,600	
Suspense Account	..	..	..	..	..	..	..	..	..	..	..	..	1,504	1,504	1,504	1,504	
Plant and Machinery	..	4,164	2,51,200	2,53,209	4,100	31,432	1,34,600	1,34,580	44,600	45,198	27,000	35,672	3,69,432	3,83,951	8,30,932	8,68,486	
Furniture and Fittings	..	..	11,608	11,608	8,709	8,709	495	495	352	352	2,298	2,298	23,896	23,896	47,358	47,358	
Stores—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Fuel and Coal	..	..	..	1	..	..	216	228	..	..	269	288	114	551	598	1,018	
Oil and other Lighting	..	..	7,463	8,579	2,644	8,346	2,098	1,048	3,147	3,493	12,674	9,954	5,170	6,081	38,796	28,401	
Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Provisions	..	..	43,919	48,202	1,093	3,731	1,778	6,655	..	..	135	653	256	8,594	381	9,247	
Other Stores	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Sundry Debtors	..	..	3,338	764	2,637	..	66	158	8,216	8,043	6,366	6,503	..	21,496	20,625	63,896	
Permanent Advance	..	..	..	..	..	..	..	100	..	..	100	100	500	500	600	39,048	
Depreciation Fund	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	700	
Investment Fund	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Additional and Replacement Account	..	1,07,555	2,21,949	..	..	..	..	..	..	..	..	..	..	..	1,07,555	2,21,948	
Investments Fund	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
General Reserve Fund	..	..	..	..	..	..	..	..	..	..	..	..	..	..	82,130	86,787	
Investment Account	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7,18,393	15,47,712	
Total	..	9,08,077	18,60,601	7,70,806	7,75,791	1,88,984	1,75,301	3,54,464	3,58,175	1,19,562	1,20,714	1,24,210	1,24,833	29,98,375	31,51,826	54,14,570	65,06,744

S. C. SEN,

Assistant Audit Officer, N. I. Circle

(Commercial).

P. D. SETH,

**Accountant,**

Commerce Department.

LADLI PERSHAD,

Assistant Secretary,

Commerce Department.





INDIAN LIGHTHOUSES DEPARTMENT—*contd.*

## 341. Income and Expenditure account for the year ended 31st March 1931.

Income.	Headquarters		Madras		Bombay		Karachi		Aden		Calcutta		Rangoon		Total.
	District.	Rs.	District.	Rs.	District.	Rs.	District.	Rs.	District.	Rs.	District.	Rs.	District.	Rs.	
Light duesless Refunds	1929-30.	Rs.	1929-30.	Rs.	1929-30.	Rs.	1929-30.	Rs.	1929-30.	Rs.	1929-30.	Rs.	1929-30.	Rs.	1930-31.
Contributions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Rs.
Miscellaneous Receipts	..	4,158	..	2,33,813	..	2,58,664	..	80,576	..	1,77,521	..	2,59,968	..	2,24,423	13,39,831
Deficiency transferred to General Reserve fund	..	2,420	..	10,840	..	98	..	66	..	22,300	..	269	..	801	56,388
	..	9,341	..	690	..	36	..	131	..	22,525	..	60	..	135	4,207
	..	3,27,820	..	3,78,692	..	..	..	1,358	..	..	..	..	..	19,985	11,608
	..	..	..	..	..	..	..	..	..	..	..	..	..	20,923	3,46,905
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,00,382
Statistical Information required under Rule 44 of the Lighthouse Accounting Rules.															
Tonnage of foreign-going steamships charged at 1½ annas per ton	1929-30.	Tons.	1929-30.	Tons.	1929-30.	Tons.	1929-30.	Tons.	1929-30.	Tons.	1929-30.	Tons.	1929-30.	Tons.	1930-31.
Tonnage of Home Trade steamships charged at 1½ annas per ton	..	9,558,034	..	9,558,034	..	9,558,034	..	9,558,034	..	9,558,034	..	9,558,034	..	9,558,034	92,31,821
Tonnage of steamships charged at 3 pies per ton	..	3,865,078	..	3,865,078	..	3,865,078	..	3,865,078	..	3,865,078	..	3,865,078	..	3,865,078	29,71,544
Tonnage of sailing ships charged at half of 1½ annas per ton	..	4,371,727	..	4,371,727	..	4,371,727	..	4,371,727	..	4,371,727	..	4,371,727	..	4,371,727	108,606
Tonnage of sailing ships charged at half of 3 pies per ton	..	437,899	..	437,899	..	437,899	..	437,899	..	437,899	..	437,899	..	437,899	20,809
Tonnage of steamships charged at a pie per ton	..	12,878	..	12,878	..	12,878	..	12,878	..	12,878	..	12,878	..	12,878	3,799,624
Tonnage of sailing ships charged at a pie per ton	..	328,341	..	328,341	..	328,341	..	328,341	..	328,341	..	328,341	..	328,341	257
Tonnage of sailing ships charged at half of 1 pie per ton	..	460	..	460	..	460	..	460	..	460	..	460	..	460	2,88,175
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12,075
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,301
Total	..	18,574,917	..	18,574,917	..	18,574,917	..	18,574,917	..	18,574,917	..	18,574,917	..	18,574,917	1,05,37,412
Total	..	3,30,240	..	3,92,101	..	2,53,860	..	2,47,172	..	2,90,784	..	2,58,762	..	80,773	78,849
	..	1,99,821	..	1,43,804	..	3,21,185	..	2,59,968	..	2,47,926	..	2,64,516	..	17,24,589	16,45,172

## CHAPTER VI.

## Government of India—Home Department concerns.

## SHIPPING DEPARTMENT, PORT BLAIR.

SECTION I.—REVIEW OF THE ACCOUNTS AND THE FINANCIAL ASPECTS OF THE WORKING OF TWO CHARTERED SHIPS S. S. “MAHARAJA” AND THE STATION SHIP FOR THE YEAR 1930-31 BY THE CHIEF COMMISSIONER, ANDAMANS AND NICOBAR ISLANDS.

342. After the termination of the Charter the S. S. “Ahmedi” (Station Ship) was handed over to the owners on the 15th June 1930. During this period of the financial year she made one voyage to Calcutta and two to Rangoon, after which she was sent to Bombay with some cargo.

The S. S. “Shahjehan”, a bigger vessel having a greater capacity for taking cargo was chartered in the place of S. S. “Ahmedi” as the Station Ship in June 1930.

343. The following are the expenditure and earnings of the Ships for the years 1929-30 and 1930-31.

S./S. “Maharaja.”

*Expenditure.*

	1930-31.	1929-30.
	Rs.	Rs.
Cost of Coal . . . . .	61,421	52,039
Charter of Steamer . . . . .	4,34,199	4,34,199
Indian Port Expenses and Working, etc. . . . .	61,054	70,035
Other Charges . . . . .	6,202	13,510
	<hr/> 5,62,876	<hr/> 5,69,783

*Earnings.*

Passage . . . . .	93,574	1,16,380
Inward Freight . . . . .	1,20,971	1,21,696
Outward Freight . . . . .	1,85,421	1,92,853
Mail Subsidy . . . . .	4,250	4,250
	<hr/> 4,04,216	<hr/> 4,35,179
Loss . . . . .	<hr/> 1,58,660	<hr/> 1,34,604

*S./S. "Ahmedi" (Station Ship) up to 15th June 1930.**Expenditure.*

	1930-31.	1929-30.
	Rs.	Rs.
Cost of Coal . . . . .	12,018	56,093
Charter of Steamer . . . . .	45,133	2,67,882
Indian Port Expenses, Working Expenditure, etc.	7,792	40,187
Other Charges . . . . .	8,309	7,954
	<hr/> 73,252	<hr/> 3,72,116

*Earnings.*

Passage . . . . .	5,287	44,923
Inward Freight .. . . .	25,943	76,971
Outward Freight . . . . .	15,606	72,669
Mail Subsidy . . . . .	885	4,250
	<hr/> 47,721	<hr/> 1,98,813

Loss . . . . .	<hr/> 25,531	<hr/> 1,73,303
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*S./S. "Shahjehan."**Expenditure.*

Cost of Coal . . . . .	51,668	..
Charter of Steamer . . . . .	2,60,704	..
Indian Port Expenses, Working Expenditure, etc.	37,225	..
Other Charges . . . . .	4,127	..
	<hr/> 3,53,724	<hr/> ..

*Earnings.*

Passage . . . . .	30,129	..
Inward Freight . . . . .	1,30,769	..
Outward Freight . . . . .	94,106	..
Mail Subsidy . . . . .	3,365	..
	<hr/> 2,58,369	<hr/> ..

Loss . . . . .	<hr/> 95,355	<hr/> ..
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**344.** The account of S. S. "Maharaja" shows a loss of Rs. 1,58,660 against Rs. 1,34,604 in 1929-30 and that of the Station Ships S. S. "Ahmedi" and its successor "Shahjehan" shows a loss of Rs. 1,20,886 against a loss of Rs. 1,73,303 on the S. S. "Ahmedi" in 1929-30.

345. The total expenses and earnings of the voyages of the Steamers for the years 1929-30 and 1930-31 are compared below :—

	No. of Voyages to and from.	No. of steaming hours.	Expenditure,	Earnings,	Loss.	Average loss per voyage.	Loss per Steaming hour.
			Rs.	Rs.	Rs.	Rs.	Rs.
<i>S./S. "Maharaja."</i>							
1929-30	18½	2,078	5,69,783	4,35,179	1,34,604	7,276	64·8
1930-31	18½	2,275	5,62,877	4,04,216	1,58,661	8,576·2	69·7
<i>S./S. "Ahmeda."</i>							
1929-30	22	2,965	3,72,117	1,98,813	1,73,304	7,877	53·4
1930-31	3½	683	73,252	47,721	25,531	7,294·6	37·4
<i>S./S. "Shahjehan."</i>							
1930-31.	17½	1,794	3,53,724	2,58,369	95,355	5,448·8	53·1

346. The reason for the loss has already been alluded to in paragraph 418 of the Appendix for the year 1929-30. They are :—

1. The population of the Islands being small the imports are just limited to their requirements.
2. Earnings on passages are also limited due to the thin population of the Andamans.
3. Steamers cannot be fully employed in their capacity as they have to meet the demands of the administration, such as touring the Nicobars, tending Light houses and light vessels off the Burma Coast, transport of troops, etc.

As far as possible Steamers are employed as the export demands require.

347. The total tonnage carried by the ships was 40,160 and 31,222 in 1930-31 and 1929-30, respectively.

A comparative Statement of tonnage of Cargo carried by the vessels during the two years ending 1930-31 is given below :—  
*Statistics regarding Export and Import Cargo.*

		1930-31.			1929-30.		
		"Maharaja."	"Ahmedi."	"Shahjehan."	Total.	"Maharaja."	"Ahmedi." Total.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Calcutta.</i>							
Export timber	.	6,133	167	3,496	796	9,094	2,212
Export Other Cargo	.	322	6	132	460	269	131
Import Coal	.	3,019	..	7,776	10,795	3,902	140
Import Foodstuffs	.	641	29	707	1,377	883	291
Import Other Cargo	.	1,504	108	1,321	2,933	1,802	886
Total	.	11,619	310	13,432	25,361	15,950	3,660
<i>Rangoon.</i>							
Export timber	.	2,411	501	1,514	4,426	4,002	1,987
Export Other Cargo	.	575	117	414	1,106	648	596
Import foodstuffs	.	845	162	645	1,652	658	680
Import Other Cargo	.	424	196	464	1,084	422	630
Total	.	4,255	976	3,037	8,268	5,730	3,893
<i>Madras.</i>							
Export timber	.	5,007	..	502	5,509	1,870	..
Export Other Cargo	.	499	..	87	586	65	..
Import foodstuffs	.	14	..	..	14	4	..
Import Other Cargo	.	127	..	9	136	50	..
Total	.	5,647	..	598	6,245	1,989	..
<i>Bombay</i>							
Export timber	.	..	260	..	260	..	..
Export Other Cargo	.	..	..	26	26	..	..
GRAND TOTAL	.	21,621	1,546	17,093	40,160	23,669	7,553
							31,222



**348.** Although the total tonnage increased from 31,222 in 1929-30 to 40,160 during 1930-31 the "Maharaja" carried only 21,521 tons of Cargo during 1930-31 against 23,669 in 1929-30. This has caused a little decrease in the earnings. It is also due to the distribution of cargo among the ships as detailed in the statement appended to paragraph 347 above.

The passage earnings in 1929-30 went higher than usual as a larger number of convicts was transported. It has again reached the normal during 1930-31.

**349.** The increase in expenditure against cost of coal of S./S. "Maharaja" during 1930-31 is due to the fact that the vessel was supplied with coal at Rangoon and Port Blair, whereas all coal in 1929-30 was supplied at Calcutta. The cost of coal in Rangoon and Port Blair is higher by Rs. 8 per ton. This is occasionally done when the steamer touches these ports.

The reduction in the working expenses of S./S. "Maharaja" in 1930-31 is due to the variation in freight as explained in statement given in paragraph 347 above.

350. The following are the comparative figures of expenditure and earnings from the voyages to and from the various Ports in 1930-31.

Port.	Number of voyage.	Number of days.	Expenditure.	Average Expenditure per voyage.	Earnings.	Average earnings per voyage.	Net Loss.	
							Per voyage.	Per day.
<i>S./S. "Maharaja."</i>								
Calcutta	7½	180	2,77,583	37,011	2,13,831	28,510.8	Rs. 8,500.2	Rs. 354.1
Rangoon	5	70	1,07,949	21,590	91,151	18,230.2	3,359.8	239.9
Madras	6	115	1,77,345	29,557	94,984	15,830.6	13,726.4	716.1
<i>S./S. "Ahmedi."</i>								
Calcutta	1	19	18,313	18,313	9,998	9,998	8,315.0	437.6
Rangoon	2	34	32,771	16,385	30,865	15,432.5	952.5	56.5
Delivery at Bombay	½	23	22,168	..	5,973	..	..	..
<i>S./S. "Shahjehan."</i>								
Calcutta	6	142	1,81,330	30,222	1,71,875	28,645.8	1,576.2	66.5
Rangoon	3½	66	84,281	24,080	68,343	19,526.5	4,553.5	241.5
Madras	1	19	24,263	24,263	8,745	8,745	15,518	816.7
Nicobars	7	50	63,850	9,121	6,042	863	8,258	1,156.1

**351.** The S./S. "Maharaja" performed 6 voyages to Madras during 1930-31 with cargo relating to the Forest Department as against 2 during 1929-30. She made  $7\frac{1}{2}$  voyages to Calcutta during 1930-31 as against  $10\frac{1}{2}$  during 1929-1930. The voyages to Madras are expensive as the quantity of import from this port is exceedingly small.

**352. Profit and Loss Accounts.**

These accounts show a total loss of Rs. 3,11,592 as against Rs. 3,41,108 in 1929-30. The decrease in loss is due to the greater tonnage shipped as will be seen from the statement in paragraph 347. In arriving at this loss proforma adjustments have been made for the following charges besides the allowance of the Shipping Officer and the salaries of establishment paid out of the Budget of the Shipping Office—

1. Wages of Stevedoring gang and Convict labour employed.
2. Rent of Office and Godown.
3. Rent of Staff Quarters.
4. Printing, Stationery and Telephone rent.
5. Depreciation of furniture.
6. Audit fees.
7. Leave and Pension Contribution.

If the loss in connection with voyages to Nicobars which are arranged for Administrative purposes is deducted, the nett loss for the year 1930-31 in the Proforma Commercial accounts will be reduced to Rs. 2,53,784.

**SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.**

**353.** The working of the Shipping Office resulted in a total loss of Rs. 3,11,592 during 1930-31 as against Rs. 3,41,108 and Rs. 4,23,927 for the years 1929-30 and 1928-29 respectively. The losses on the voyage account of the three vessels S.S. "Maharaja", S.S. "Ahmedi" and S.S. "Shahjehan" are compared below :—

Period.	S. S. "Maharaja."		S. S. "Ahmedi".		S. S. "Shahjehan".	
	Loss.	Percentage of loss to earnings.	Loss.	Percentage of loss to earnings.	Loss.	Percentage of loss to earnings.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1927-28 . . .	1,73,780	45.6	1,77,098	109.7	..	..
1928-29 . . .	2,01,071	56.6	1,91,694	112.1	..	..
1929-30 . . .	1,34,604	30.9	1,73,304	87.1	..	..
1930-31 . . .	1,58,661	39.2	25,531	53.5	95,355	36.9

The loss on the "Maharaja" increased during 1930-31 because she carried less cargo and fewer convicts during the year under review. She was also more frequently employed on the Madras trips, which are the least paying and also performed only  $7\frac{1}{2}$  voyages to Calcutta during 1930-31 as against  $10\frac{1}{2}$  during 1929-30.

On the whole, however, the results are more favourable because the total cargo carried during the year amounted to 40,160 tons as against 31,222 tons during 1929-30.

The Nicobar trips continue to be the least paying, as practically no cargo is carried to and fro. The Trips are said to be for administration reasons.

The Madras voyages are also the least paying of all voyages to the Indian ports, because there is no import cargo from Madras. The voyages seem to be more in the interests of the Forest Department, whose shipments of timber seem to be the main inducement to sailings to that port.

These limitations must be taken into account when judging the working of the Shipping Department.

## SHIPPING OFFICE, PORT BLAIR.

## 354. Voyage and Profit and Loss Accounts of S. S. "Maharaja", S.S. "Ahmedi" and S.S. "Shahjehan" for the years 1929-30 and 1930-31.

1929-30 S.S. "Maharaja," "Ahmedi,"	S.S. Voyage expenses.	1930-31.		S.S. "Maharaja," "Ahmedi,"	Earnings.	1930-31.		S.S. "Maharaja," "Ahmedi,"	S.S. "Shahjehan."
		Rs.	Rs.			Rs.	Rs.		
Rs. 52,039	56,093 Coal	61,421	12,018	51,608	Passages	44,923	93,574	5,297	30,129
4,34,199	2,67,892 Charter hire	4,34,199	45,133	2,60,704	Import freight	76,972	1,20,971	25,943	1,30,769
70,035	40,187 Indian Port expenses and other working expenses	61,054	7,792	37,225	Export freight	72,669	1,85,421	15,606	94,106
60	5,247 Water	540	849	1,391	Postal traffic	4,250	4,250	885	3,365
6,189	2,287 Messing charges	3,248	179	1,517	Loss on Voyage carried down	1,73,303	1,58,660	25,531	95,355
7,262	421 Miscellaneous expenses	2,414	7,231	1,219					
5,69,784	3,72,117	5,62,876	73,252	3,53,724		5,69,784	3,72,117	5,62,876	73,252
1929-30.	Losses brought down:—			1930-31.		1929-30.			1930-31.
1,34,604	S.S. "Maharaja"			1,58,660		3,41,108			3,11,592
1,73,303	S.S. "Ahmedi"			25,531	Total loss for the year				
23,897	S.S. "Shahjehan"			95,355					
	Salaries and Allowances			23,654					
	Charges not appearing in the Accounts of the Shipping office:—								
6,703	Wages of Stevedoring gang and convict labour employed		4,748						
1,200	Rent of Office and Godowns		396	900					
431	Rent of Staff Quarters		270	270					
270	Printing, Stationery and Telephone Rent		150	150					
150	Depreciation of Furniture		1,390	1,390					
500	Audit Fees		538	538					
..	Leave and Pension Contribution								
3,41,108			Total	3,11,592		3,41,108	Total	3,11,592	

(Sd.) T. S. A. LINGAM,  
Accountant.(Sd.) J. L. WICKEN,  
Engr. Lt.-Commander, R.I.M.,  
Shipping Office, Port Blair.(Sd.) V. D. DANTYAGI,  
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## MARINE DEPARTMENT, ANDAMANS.

SECTION I.—REVIEW BY THE CHIEF COMMISSIONER, ANDAMANS AND NICOBAR ISLANDS, ON THE COMMERCIAL CONCERNS OF THE MARINE DEPARTMENT, PORT BLAIR FOR THE YEAR 1930-31.

355. The Marine Department is controlled by an Officer of the Royal Indian Marine, assisted by a Foreman Engineer and a Shipwright Carpenter. It consists of three Main Divisions, maintained merely for Department work and in connection with the Port Service :—

1. The General Stores.
2. The Dockyard.
3. The control of water Transport and Port Superintendents, of which only one Division, *viz.*, Workshop has been commercialised so far.

356. The system suggested for adoption by the several Commercial Auditors from time to time has been brought into effect in most cases and it is anticipated that in course of time the whole arrangement will be regularised and run on the lines suggested.

357. Comparative statement showing the results of the Dockyard Working Account for 1929-30 and 1930-31 :—

<i>To Direct Charges—</i>	1929-30.	1930-31.
	Rs.	Rs.
Materials . . . . .	32,209	38,386
Labour Free . . . . .	14,912	19,202
Labour Convicts . . . . .	27,669	38,792
Overheads (Power) . . . . .	3,679	5,843
Overheads (Shop) . . . . .	29,598	35,211
Overheads (General) . . . . .	16,132	19,431
Total . . . . .	124,199	156,865

## RECEIPTS.

<i>By recoveries effected—</i>	1929-30.	1930-31.
	Rs.	Rs.
Stores . . . . .	1,848	2,903
Labour . . . . .	5,835	8,443
<i>Debit to Marine Department for work executed—</i>		
Stores . . . . .	30,361	35,483
Labour . . . . .	9,388	14,032
Total . . . . .	47,432	60,861
Deficiency in working transferred to Income and Expenditure account.	76,767	96,004
Total . . . . .	124,199	156,865



The outturn presented in the accounts shows the net receipt of the concern after eliminating the deficiencies.

Taking into consideration the new items of expenditure such as share of storekeeping expenses, and rent of Dockyard Buildings, debited to the Dockyard account for the year under review, and also the difference between the actual figure on account of expenditure on stores for shop use appearing in our book under shop overheads and that shown in the Commercial Account for 1929-30, there has been a slight increase in the outturn.

**358.** Statement showing the distribution of the deficiencies under Dockyard Account for the two years 1929-30 and 1930-31.

*Nature of heads—*

	1929-30.	1930-31.
	Rs.	Rs.
Materials . . . . .	..	..
Productive Labour . . . . .	27,358	35,519
Factory Overheads . . . . .	33,277	41,054
General Overheads . . . . .	16,132	19,431
Total . . . . .	76,767	96,004

*Materials.*—There has been no difference under this head.

*Productive Labour.*—The outlay on productive labour is larger than the previous year, which was due to creation of 10 temporary posts of Fitters, Machinemmen, Boiler Makers, and other Convict Labour required to cope with the repairs work in hand. It may be seen from the figures shown in the statement of Dockyard working account that more than  $\frac{2}{3}$  of the increase is covered by recoveries.

The increased deficiency under the Dockyard for the year under report is due to the fact that the cost of extensive repairs to M.L. Elfin, and S.L. Bess, which were in hand during the year but remained to be completed at the end of the year, has not been included in the account. However, in future all such items will be considered in preparing the *pro forma* Commercial Account and is expected to give better results.

*Factory Overheads.*—There has been an increase under Power Overheads which was due to the inclusion of wages of 2 temporary free Machinemmen engaged during the year against sanctioned posts.

*Shop Overheads.*—The expenditure under this head has increased from previous year particularly under stores for shop use, as the amount for 1930-31 is Rs. 11,556 against Rs. 1,540 in the previous year. This appears to be due to change of system in maintaining separate registers for stores for shop use as against a general register in the previous year.

Also due to Stores and Oil fuel consumed by the Oil Engine, installed for driving the workshop Machinery in addition to the Main Steam Engine which also had to be kept going for supplying steam for the Steam Winch for the purpose of hauling up Launches and Lighters, etc. Efforts are being made to use some other cheaper means of supplying steam for the Steam Winch, which, if proved successful, will result in the stoppage of the Steam Main Engine.

Share of storekeeping expenses, viz., Rs. 1,384 which is a fresh item of expenditure is also included under this head.

*General Overheads.*—There is also a rise under this head which is chiefly due to rent of Dockyard Buildings having been included in the accounts of 1930-31 for the first time.

**259. Marine Department Income and Expenditure account**—Comparative statement showing the income and expenditure of the Marine Department for the years 1929-30 and 1930-31.

	1929-30.	1930-31.
	Rs.	Rs.
<i>Expenditure—</i>		
To Running Expenses of Launches, etc. . . . .	1,75,791	1,83,275
Deficiency under stores and Dockyard Accounts . . . . .	87,213	96,004
Purchase of Steam Launches, etc. . . . .	92,497	..
<i>General Superintendence—</i>		
Office Establishment . . . . .	12,304	13,811
Convict Establishment . . . . .	1,438	..
<b>Total</b> . . . . .	<b>3,69,248</b>	<b>2,93,090</b>
<i>Income—</i>		
By recoveries effected (cash and adjustment) . . . . .	91,460	1,14,153
Ferry Service . . . . .	5,019	5,099
Profit under stores and coal accounts . . . . .	..	12,684
	<b>96,479</b>	<b>1,31,936</b>
<b>Net charges of the working of the Department</b> . . . . .	<b>2,72,769</b>	<b>1,61,154</b>
<b>Total</b> . . . . .	<b>3,69,248</b>	<b>2,93,090</b>

The expenditure on stores has increased due to extensive repairs and renewals necessary to some of the Launches and Lighters which are getting old.

The decrease in the total expenditure is due to no new purchase having been made during the year 1930-31.

The recoveries have considerably increased owing to the revision of rates in respect of Lighterage, Towage and Landing charges on Import Goods also charges for water transport used in connection with the Dredging Operations.

**360. Comparative statement of stores account for the years 1929-30 and 1930-31.**

<i>Debit—</i>	1929-30. Rs.	1930-31. Rs.
To value of stores on hand at the beginning of the year	1,61,152	1,67,322
Receipts during the year including freight	1,77,025	1,76,612
Share of E. and H. M. pay	..	2,324
Storekeeping salaries and wages	1,883	5,279
	3,40,060	3,51,537
Profit	..	12,684
<b>Total</b>	<b>3,40,060</b>	<b>3,64,221</b>
<i>Credit—</i>		
By issues to Dockyard	36,940	53,442
Issues to launches, etc., of Marine Department	73,069	73,535
Other Issues	52,278	88,126
Share of Storekeeping expenses	..	1,384
Closing stock	1,67,322	1,47,734
	3,29,609	3,64,221
<b>Deficit</b>	<b>10,451</b>	<b>..</b>
<b>Total</b>	<b>3,40,060</b>	<b>3,64,221</b>

From the above it may be seen that a profit of Rs. 12,684 has accrued under stores account in the year 1930-31 against a loss of Rs. 10,451 in the previous year.

The profit is due to Centage Charges recovered on stores, etc., issued to other Departments and private individuals over and above the cost price including all direct charges which have been accurately worked out.

**SECTION II—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.**

**361.** The net cost to Government of the Marine Department for the three years 1930-31, 1929-30 and 1928-29 is compared below :—

	1930-31. Rs.	1929-30. Rs.	1928-29. Rs.
Maintenance of launches, lighters, etc.	84,119	97,690	99,400
General superintendence of Port	5,965	—346	783
	(surplus)	(surplus)	
Deficiency in Dockyard working	96,004	76,767	81,356
Stores Account	—12,684	10,451	19,785
	(surplus)	(deficit)	(deficit)
Maintenance and upkeep of Cutter Nan-Cowry	..	..	495
Purchase of launches, lighters, etc.	..	92,497	82,925
	1,61,474	2,77,059	2,85,744
Less sales of Machinery and boats	320	4,290	..
	1,61,154	2,72,769	2,85,744

(NOTE.—The expenditure on subsistence allowance to convict apprentices in 1928-29 and 1929-30 was debited under "General Superintendence of Port" in those years, but in 1930-31 it has been debited to "Maintenance of launches, etc." The figures of 1928-29 and 1929-30 under the two heads have, therefore, been corrected so that the comparison may be effective).

**362.** The decrease in expenditure is mainly due to there being no purchase of launches and lighters during the year 1930-31. Except at the Dockyard, the results of working during 1930-31 were more favourable than those of the previous year. This improvement was mainly due to the increase in revenue and probably also to the better control and correct accounting of stores. The increase in revenue was mainly due to the hire of lighters and towage charged to the dredging operations, as well as to more receipts under landing charges. The increase in the Landing charges was due to the larger imports of coal for the dredger and the increase in rates from two annas to four annas per ton.

**363.** The deficiency on the working of the Dockyard during 1930-31 amounted to Rs. 96,004 as against Rs. 76,767 during 1929-30. In arriving at this deficiency, no account has been taken of the value of the works in progress both at the beginning and at the end of the year, as the value thereof could not be ascertained.

As at the end of the year under review two large reconstruction works were under progress, the absence of any credit for work already done on them is partly responsible for the bigger deficiency in the working of the Dockyard during the year 1930-31. If the work in progress at the end of the year could be credited in the accounts, the net deficit would be less. Other reasons for the bigger deficit are :—

- (1) the new charge for “ Rent of Buildings ” occupied by the Dockyard, and
- (2) a more correct allocation of stores used on plant and machinery, which led to an increase under this head during 1930-31.

*Marine Department, Andamans.*

1929-30.	Rs.	1929-30.	Rs.	1930-31.	Rs.
To Direct charges :—Materials, wood working, metal working, foundry, leather working and Motor reconditioning	32,209				
To Labour :—Freeman—					
Woodworking	6,894			38,386	
Metal working	5,588			6,173	
Fitters	2,430			6,330	
Boiler making	..			4,538	
To Labour :—Convict workers	20,726			2,161	
To Overheads :—Coal and fuel, etc.	3,679			38,792	
To Shop overheads :—				5,843	
Pay of Foreman Engineer	4,398			4,438	
Pay of Master Carpenter	4,560			4,690	
Pay of Motor Mechanic	2,662			1,158	
Stores for shop use	1,540			11,556	
Leave and pension contribution	5,766			4,404	
Depreciation on Plant and Machinery	5,314			5,038	
Interest on Capital	1,891			1,883	
Audit Fee	500			660	
Share of storekeeping expenses				1,394	
To General overheads :—					
Share of Pay of Engineer and Harbour Master	4,500			3,486	
Share of Office establishment	4,879			2,831	
Leave and Pension Contribution of Engineer and Harbour Master	2,942				
Do. of Office establishment	..			2,674	
Office expenses	360			221	
Office menial staff	1,438			1,283	
Printing and stationery and Telephone charges	110			110	
Rent of buildings and quarters	1,903			8,826	
	1,24,199			1,24,199	
				1,56,865	
					1,56,865

(Sd.) JAFAR ALI,  
Head Clerk and Accountant,  
Marine Office.

(Sd.) J. L. WICKEN,  
Engr. Lt. Commander, R.I.M.,  
Engineer and Harbour Master.

(Sd.) V. D. DANTYAGI,  
Assistant Director of Commercial Audit,  
Burna Circle.





*Marine Department, Andamans.*  
366. Stores Account.

1929-30.	Rs.	1929-30.	Rs.	1930-31.	P.s.
To value of Stores on hand at the beginning of the year	1,61,152	To value of Stores on hand at the beginning of the year	1,67,322	By issues to Dockyard	53,442
To receipts during the year including freight	1,77,025	To receipts during the year including freight	1,76,612	By issues to launches, etc., belonging to Marino Department	73,535
To share of Engineer and Harbour Master's pay	1,883	To share of Engineer and Harbour Master's pay	2,324	By other issues	£8,126
To Storekeeping salaries and wages	..	To Storekeeping salaries and wages	5,279	By share of storekeeping charges debited to Dockyard	1,384
To Profit	..	To Profit	12,684	By Closing Stock	1,47,734
				By Deficit	..
3,40,060		3,64,221			3,64,221

**Sd. JAFAR ALI,**  
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**Marine Office.**

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Engineer Lt. Commander, R.I.M.,  
Engineer and Harbour Master.

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## EXECUTIVE COMMISSARIAT DEPARTMENT, ANDAMANS.

SECTION I—REVIEW BY CHIEF COMMISSIONER, ANDAMANS AND NICOBAR ISLANDS, ON THE COMMERCIAL CONCERNS OF THE COMMISSARIAT DEPARTMENT FOR THE YEAR 1930-31.

**367. Bakery.**—This Branch produced a profit, as will be seen from the attached statement. The drop in the Bakery profit was caused by :—

1. Rise in price of flour.
2. Less sales during the year.
3. Inclusion of audit fees not previously recorded, and increase in rent of building.

**368. Ice Plant.**—This plant was taken from the Contractor on the 19th April 1930.

The total receipt amounted to Rs. 7,123-9-0 against expenditure of Rs. 5,641-6-0, thus showing a profit of Rs. 1,482-3-0. The balance sheet affixed gives the details.

**369. Dairy Farm.**—This institution is maintained primarily to supply the requirements of milk, butter and cream for officials, residents, troops and hospitals in Port Blair. The account of the Dairy Farm for the year 1930-31, has been audited by the Commercial Audit staff who arrived here in October 1931.

A sum of Rs. 51,354-9-3 was realised and Rs. 53,144-2-10 was debited during the year thus showing a loss of Rs. 1,789-9-7 at the close of the year. The debits and credits for the year 1929-30 were Rs. 46,993-10-0 and Rs. 44,239-12-0 respectively and the loss Rs. 2,753-14-0.

The loss in the year under report has been arrived at by working on previous years debit and credit items, with an additional charge for Auditors fees

The statement showing receipt and expenditure is affixed.

**370. Butchery.**—This branch is maintained to feed the detachment of British Troops, Residents, hospitals, etc. The total debits and credits of 2 years under this head are as under :—

	Debits,	Credits,	Loss,
1929-30 . . . . .	42,352	42,156	196
1930-31 . . . . .	65,054	45,279	19,775

The following are the reasons for the loss :—

1. Increased importation of slaughter cattle from India owing to fewer animals being available for purchase locally.
2. Steamer freight.
3. Overhead charges.
4. Loss in mutton is due to high importation charges and cost of stall feeding of sheep. The climate of Port Blair is generally speaking unsuitable for sheep.

## SECTION II—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

**371.** The commercial activities of the Executive Commissariat Office Port Blair, consist of the Bakery, the Dairy Farm, the Butchery and the Ice,

Factory. The Ice Factory was worked by contractors in previous years, and was taken over by Government only on 19th April 1930.

The results of working of all these concerns during 1930-31 are compared below :—

Concerns.	1927-28.		1928-29.		1929-30.		1930-31.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bakery : :	1,987	..	3,143	..	2,526	..	1,939	..
Dairy Farm .	..	12,421	..	5,839	..	2,754	..	1,790
Butchery : :	..	19,017	..	4,120	..	196	..	19,775
Ice Factory : :	..	..	..	..	..	..	1,482	..

372. The decrease in the profits of the Bakery is mainly due to the new debits for the rent of buildings occupied by the staff and the audit fees raised in the accounts. The expenditure has remained fairly steady under the various heads.

373. The improvement in the working of the Dairy Farm over that of 1927-28 is substantial inasmuch as the loss has been reduced from Rs. 12,421 to Rs. 1,790. The better results of the year as against 1929-30 are entirely due to the credit taken in the accounts for the appreciation in the value of young stock amounting to Rs. 2,622 against a debit in 1929-30 of Rs. 3,243 for depreciation on live stock. The Dairy Accounts do not include the cost of bull and calf attendants, the cost of fodder cultivation and transport of grass to the farm. If these charges which appear to be legitimate are included, the loss would be increased considerably.

The increase in expenditure under "grain and fodder" is chiefly due to the increase in the number of cattle, while more expenditure has been incurred under "other purchase and stores" mainly because more milk has been bought from contractors. 1,49,132 lbs. of milk was bought in 1930-31 as against 1,35,144 lbs. only in 1929-30. But for the profits on the sale of the contractors' supplies the loss on the working of the Dairy Farm would have been more by Rs. 5,087.

The expenditure under other heads has not varied appreciably, except that an increase of Rs. 100 per mensem in manager's pay has increased the charges under "Pay and Travelling Allowance of Manager". There is a new charge for audit fees.

374. The losses of the Butchery under the heads "Beef", "Mutton", and "Goats" for the three years ending 1930-31 are compared below :—

	1930-31.	1929-30.	1928-29.
	Profit.	Profit.	Profit.
Beef . . . . .	—13,603	3,062	—3,330
Mutton . . . . .	—6,172	—3,258	—382
Goats . . . . .	..	..	—408
Total	—19,775	—196	—4,120

NOTE.—Minus figures indicate losses.

The heavy loss on beef in 1930-31 was mainly due to the greater number of imported cattle which cost much more but yielded much less meat than local animals, the average cost of an imported animal being Rs. 64 against Rs. 40 per head of local cattle. This is reflected in the accounts in the increased debits under "Purchase of animals—Cattle", "Freight, etc., on imported animals", "Feed of livestock". For the rest there is no appreciable variation in expenditure. The receipts from the sale of "Hides and Skins" have also gone down considerably as there is said to be no market for the same, and the hides are said to have deteriorated as a consequence. The increased loss on mutton was due chiefly to the increased cost of feed. The issues of fodder to the slaughter animals are charged in these accounts at favourable rates. If the rates recovered from other departments were charged, the loss would be correspondingly more.

375. The costs and selling prices of milk, cream, butter, mutton and beef for the two years 1930-31 and 1929-30 are compared in the following statement :—

	1930-31.		1929-30.	
	Cost.	Selling price.	Cost.	Selling price.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Milk . . . . .	0 3 3	0 2 6	0 3 2	0 2 6
Cream . . . . .	1 10 5	1 4 0	1 10 0	1 4 0
Butter . . . . .	2 5 9	2 0 0	2 5 3	2 0 0
Mutton . . . . .	2 5 6	0 12 0	1 6 3	1 4 0
				0 12 0
Beef . . . . .	0 10 7	0 7 0	0 6 2	0 7 0

In the above statement, the cost of cream and butter has been worked out on the basis of milk consumed at 0-2-6 per lb. The cost of milk per lb. has been worked out on a provisional basis, excluding 1/3rd of the pay of the manager, the share of the pay of the Executive Commissariat Officer and his establishment, leave and pension contribution charges and stationery and a moiety of Rs. 30 out of the audit fees.



## Executive Commissariat Office, Andamans—contd.

377. Trading and Profit and Loss Accounts of the Government Bakery, Port Blair, for the years 1929-30, and 1930-31.

1929-30	Rs.	1929-30.	Rs.	1930-31.	Rs.	1930-31.	Rs.
To Opening stock of Bread	5	..	..	6	14,183	By sale of bread, biscuits, twists buns and soda scones .. ..	..
Stores issued—flour, atta, etc.	9,380	..	..	9,451	6	Closing stock of bread ..	..
Fuel and lighting charges	217	..	..	280			13
Wages and subsistence allowances of baker, coolies, etc. (including clothing to menials)	941	..	..	964			
Share of Store-keeper's salary	360	..	..	360			
Other charges for which no debit appears in Executive Commissariat Officer's books :—							
Share of Clerical establishment	316	..	..	240			
Rent of buildings, etc.	240	..	..	558			
Interest, Depreciation and other charges	204	..	..	221			
Audit Fees ..	..	..	..	113			
Profit ..	2,526	..	..	1,939			
Total	14,189	..	Total	14,189	..	Total	14,132

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(Sd.) A. FORTESCUE, Captain,  
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Assistant Director of Commercial Audit,  
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## Executive Commissariat Office, Andamans—contd.

## 378. Trading and Profit and Loss Account of the Government Butchery for the years 1929-30 and 1930-31.

1929-30	Rs.	1930-31	Rs.	1929-30	Rs.	1930-31	Rs.
To Opening stock :—							
Cattle ..	5,967	..	2,408	27,528	By sales :—	..	28,234
Sheep ..	1,347	..	1,784	5,720	Beef ..	..	3,003
Net expenditure of the year :—		..		2,048	Mutton ..	..	620
Purchase of animals :—				221	Hides and skins ..	..	176
Cattle ..	15,173	..	24,016	2,447	Offals ..	..	1,243
Sheep ..	3,200	..	2,062		Sales and transfers of animals	..	
To Freight and wages of attendants en imported animals.	4,067	..	16,502	2,408	Closing stock :—	..	
Feed of live stock ..	3,478	..	7,096	1,784	Cattle ..	..	9,413
Ice, Miscellaneous stores and clothing of staff ..	1,082	..	1,624		Sheep ..	..	1,590
Transfer of cattle from Dairy and transported	2,350	..	3,378	—3,062	Beef ..	..	13,603
Subsistence allowance to butchers, attendants, graziers, etc.	2,274	..	2,122	3,258	Mutton ..	..	6,172
Share of Executive Commissariat Officer's pay	1,326	..	1,326				
Other expenses ..	868	..	905				
Other charges for which no debit appears in Executive Commissariat Officer's books :—							
Share of clerical establishment ..	391	..	325				
Rent of buildings ..	696	..	696				
Interest, Depreciation and other charges ..	133	..	279				
Audit Fees ..	..	..	531				
	42,352		65,054	42,352			65,054

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(Sd.) A. FORTESCUE, Captain,

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*Government Ice Factory, Port Blair, Andamans.*

379. Trading and Profit and Loss Account for the year ended 31st March 1931.

1930-31				1930-31			
Rs.				Rs.			
To Opening stock	..	..	..	By Sales	..	..	7,033
„ Stores used	..	..	2,025	„ Closing stock	..	..	37
„ Salary of mechanic	..	..	912				
„ Share of pay of the Executive Commissariat Officer and Head Store-keeper	..	..	798				
„ Subsistence money to convict coolies	..	..	324				
„ Other charges for which no debit appears in E. C. O.'s books :—							
Clerical establishment	..	..	114				
Rent of Buildings	..	..	433				
Interest, Depreciation and other charges	..	..	995				
Audit Fees	..	..	40				
Profit for the year	..	..	1,482				
Total	..	..	7,123	Total	..	..	7,123

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## CHAPTER VII.

Government of India—Industries and Labour Department concerns.

## INDIAN STATE AIR SERVICE (KARACHI-DELHI SECTION).

SECTION I.—FINANCIAL REVIEW BY THE DIRECTOR OF CIVIL AVIATION IN INDIA ON THE WORKING OF THE SERVICE FROM DECEMBER 1929 TO MARCH 1931.

§80. *Preliminary.*—The Karachi-Delhi Section of the Indian State Air Service was started on the 30th December 1929 as a Government undertaking, the operation of the service having been entrusted to Messrs. Imperial Airways, Ltd., in accordance with the terms and conditions of a Charter agreement entered into by Government with that Company. Under this Charter the Company undertook to provide the necessary aircraft and to fly, maintain and insure the aircraft at their own expense, making one flight between Karachi and Delhi in each direction every week. The Government of India, on the other hand agreed to pay a sum of £1,500 per mensem in respect of the Company's fixed charges plus £162-10 0 for each completed flight between Karachi and Delhi and also to provide accommodation and landing and other reasonable facilities for the aeroplanes employed on this service, while retaining all receipts.

The commercial management of the service was entrusted to the Posts and Telegraphs Department which made no charge for its services. Out-of-pocket expenses of that Department, however, were reimbursed to them out of the Civil Aviation Grant.

A commercial system of accounting, in addition to the ordinary Government accounts was introduced with effect from December 30th, 1929, the date of the opening of the service and *pro forma* accounts for the periods ending the 31st March 1930 and 31st March 1931 have been prepared.

§81. (i) *Financial Results.*—The net cost to Government for the operation of this service during 1929-30 (three months) was Rs. 1,18,513 and during 1930-31, Rs. 4,51,952.

The total revenue for 1929-30 is Rs. 12,753 and for 1930-31 is Rs. 40,813 which average Rs. 373 and Rs. 392 per flight for the two periods, respectively.

(ii) *Miscellaneous Receipts.*—Rs. 338 was received during the three months in 1929-30 and Rs. 578 during 1930-31. These amounts are almost wholly represented by receipts on account of excess luggage carried by passengers.

(iii) *Establishment.*—Rs. 1,177 was incurred in 1929-30 and Rs. 5,310 in 1930-31. Posts and Telegraphs Department which was responsible for the commercial management of Indian State Air Service sanctioned and paid special pay to Postmasters and Clerks (one at each Station) at Delhi, Jodhpur and Karachi and this entire sum is represented by payments made to them as no other office staff was engaged in connection with the Indian State Air Service during the period under review.

(iv) *Landing and Housing Charges.*—Rs. 1,200 and Rs. 4,800 are included under this head in the accounts for 1929-30 and 1930-31, respectively, and credited to the Civil Aviation Ground Organisation which provides aerodromes and hangars for the landing and housing of aeroplanes employed on this service.

(v) *Depreciation*.—Rs. 99 written off as depreciation in 1929-30 includes Rs. 37 for furniture and fittings and Rs. 62 for miscellaneous stores. Rs. 371 written off in 1930-31 includes Rs. 125 for furniture and fittings and Rs. 246 for miscellaneous stores.

### *Balance Sheet.*

**382. Liabilities. Withdrawals from Government of India.**—It will be realised that the Indian State Air Service as such has practically no capital and no assets. The bulk of the expenditure is in the form of payments to Imperial Airways through the High Commissioner, London in respect of the costs of operation. These amount to Rs. 5,96,932. In order that the Balance Sheet may show the net result to Government in respect of this particular undertaking, it has been necessary to bring these payments, which have actually been made, into the Balance Sheet as Liabilities. The same procedure has been followed with regard to payments made in India amounting to Rs. 4,738. The remaining large item of Rs. 6,000 represents the amount due to Civil Aviation Ground Organisation in respect of landing and housing fees.

**383. Assets. Director General, Posts and Telegraphs, Rs. 36,873.**—This sum includes Rs. 9,765 carried forward from the year 1929-30 and represents *excess* of receipts by the Posts and Telegraphs Department for the sale of tickets and excess luggage fares, etc., over expenditure incurred in connection with the commercial management of the Indian State Air Service together with the amount due to Indian State Air Service for the carriage of air mails.

The remainder of the assets amounting to Rs. 482 represents furniture and miscellaneous stores purchased, less depreciation written off during the period under review.

**384. Commercial Results—General.**—It was never contemplated that the air service from Karachi to Delhi would be a commercial success. Practically all air transport operations throughout the world have, at this stage of development, to be subsidized. The loss to Government shewn in the Balance Sheet represents the extent to which this service has been subsidised in the two periods dealt with. The ratio of subsidy to earned income is unusually high, which is explained by the fact that a service from Karachi to Delhi alone does not provide sufficient advantage to attract traffic. The service was inaugurated as an initial step in the development of air services in India. The contemplated expansion of the service to Calcutta was delayed by a variety of factors, largely financial, and has not yet taken place.

**385.** The following traffic figures for each of the five quarters covered by this report are of significance.

			Average mail load per flight lbs.	Average number of passengers per flight.
Quarter ending *31st March 1930	..	..	39.5	1.8
Quarter ending 30th June 1930	..	..	45.0	1.5
Quarter ending 30th September 1930	..	..	61.0	1.1
Quarter ending 31st December 1930	..	..	75.5	.6
Quarter ending 31st March 1931	..	..	79.1	1.0

\* Includes two flights in December 1929.

## SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

386. The Indian State Air Service worked under ordinary budget control but a *pro forma* Profit and Loss Account and a Balance Sheet have been prepared to exhibit the actual working results of the service.

The audit of the *pro forma* accounts was taken up by the Commercial Audit Branch for the first time during this year, the accounts for the periods from December 1929 to March 1931 being checked.

387. As no payment was made to the Posts and Telegraphs Department in respect of the commercial management of the service, no direction charges have been included in the accounts. Charges for accounts and audit have also been excluded from the accounts but have been shown as a footnote thereto.

388. The operation of the service resulted in a loss of Rs. 1,18,513 during the last three months of 1929-30 and a loss of Rs. 4,51,952 during 1930-31. The figures for 1929-30 given in the Profit and Loss Account and Balance Sheet represent the working results for the three months ended 31st March 1930.



## INDIAN STATE AIR SERVICE (KARACHI-DELHI SECTION).

389. Balance Sheet as on 31st March 1931.

1929-30.	Liabilities.	1930-31.	1929-30.	Assets.	1930-31.
Rs.		Rs.	Rs.		Rs.
	Withdrawals from Government of India for :—			Furniture and Fittings . . . .	474
	Payments made for the Indian State		425	Less Depreciation . . . .	162
	missioner, London . . . .		37		312
1,25,874	Air Service by the High Com- missions, London . . . .	5,96,932	388	Miscellaneous Stores . . . .	416
	Payments made for the Indian State		365	Less Depreciation . . . .	246
	Air Service by the Pay and Ac- counts Officer, Secretariat . .	4,738	62		170
1,745			303	Director General, Posts and Telegraphs . .	36,873
1,27,619	Civil Aviation Ground Organisation . .	6,000	9,765	Loss* . . . .	5,70,465
1,200	Superintending Engineer, P. W. D., Marwar . . . .	150	1,18,513	Total . . . .	6,07,820
150					
1,28,969	Total . . . .	6,07,820	1,28,969		
				* This is made up as under :—	
				Loss for the year 1929-30 . . . .	Rs. 1,18,513
				and Loss for the year 1930-31 . . . .	4,51,952
					5,70,465

(Sd.) D. COLIN CAMPBELL,  
Director of Commercial Audit.(Sd.) M. A. H. CHOWDHURY,  
Commercial Accountant.(Sd.) F. TYMMMS,  
Director of Civil Aviation in India.



## INDIAN STATE AIR SERVICE (KARACHI-DELHI SECTION).

300. Profit and Loss Account for the year ended 31st March 1931.

1929-30.	Particulars.	1930-31.	1929-30.	Particulars.	1930-31.
Rs.		Rs.			Rs.
1,177	Establishment (Special Pay Account) .	5,310	5,655	Receipts from Passengers .	13,112
323	Ground Staff (Guards and Labourers Account) .	3,375	6,760	Receipts from carriage of Air Mails .	27,124
35	Rents .	..	338	Miscellaneous Receipts .	578
51	Contingencies .	55	1,18,513	Loss .	*4,51,952
46	Printing and Stationery .	816			
475	Advertising .	1,613			
88	Commission .	874			
3	Motor Transport .	1,501			
1,635	Landing and Housing Charges .	6,375			
1,460	Refund of customs duty to Imperial Airways Limited .	1,418			
99	Depreciation .	371			
1,25,874	Payment under Charter to Imperial Airways Limited .	4,71,058			
1,31,266	Total .	4,92,766	1,31,266	Total .	4,92,766

\* The above loss excludes accounts and audit charges which amount to Rs. 430 in 1929-30 and Rs. 1,719 in 1930-31.

## INDIAN STATE BROADCASTING SERVICE.

**SECTION I-A.—FINANCIAL REVIEW BY MR. C. B. SETHNA, STATION DIRECTOR ON THE WORKING OF THE BOMBAY STATION, FOR THE YEAR ENDED 31ST MARCH 1931.**

**391.** The Government of India took over the Broadcasting Service from the Indian Broadcasting Company, which went into voluntary liquidation, from 1st April 1930. The Postmaster General, Bombay, was in charge of the Bombay Station upto 31st July 1930. The technical supervision of the Station for the month of April 1930 was entrusted to the Chief Engineer of the Indian Radio Telegraph Company, Ltd., on a remuneration of Rs. 500. I was appointed as Station Director from 6th May 1930 and worked under the direction of the Postmaster General till 31st July 1930. From 1st August 1930, I was placed in sole charge of the Bombay Station. The other staff of the Broadcasting Company was taken over by Government and continued to work for a short time until the Programme and Office Establishments were thoroughly re-organised.

**392.** The European and Indian Programme Directors on Rs. 700 and Rs. 500 per month respectively were discharged from 23rd May 1930 and 5th June 1930 respectively and replaced by new men on Rs. 250 per month each. The post of Announcer of European Programmes on Rs. 100 per month and allowances of Rs. 25 and Rs. 50 per month to a member of the Office Staff as Announcer of Indian Programmes were abolished. The pay of the Indian News Translator and Announcer was reduced from Rs. 165 to Rs. 100 per month.

The services of the Accountant and the Cashier on Rs. 250 and Rs. 100 with allowances of Rs. 80 and Rs. 50 per month for the Indian Radio Times respectively were dispensed with on the 31st May 1930 and their work was entrusted to an Accountant from the Accountant General's Office on pay and deputation allowance of Rs. 233 per month. Special monthly allowances of Rs. 200 to the Indian Programme Director, Rs. 25 to the Stenotypist, Rs. 10 to a clerk and Rs. 8 to the Office Peons in connection with the work of the Indian Radio Times and the post of Assistant Editor on Rs. 170 per month were abolished and the clerk on Rs. 50 per month for the Indian Radio Times was replaced by a new man on Rs. 70 per month from 1st June 1930. The work of editing the Indian Radio Times previously done by the Editor and Assistant Editor was taken over by me in addition to my duties as Station Director. This re-arrangement of staff resulted in a saving of over Rs. 950 and Rs. 520 per month for the Broadcasting Service and the Radio Times respectively.

**393.** On the Engineering side, the whole staff taken over from the Broadcasting Company was retained and it was considered necessary to revise their pay. The revision was sanctioned by the Government of India with effect from 1st August 1930 and resulted in an increase of Rs. 175 per month. Fixed Conveyance Allowance amounting to Rs. 255 per month was also sanctioned for the above staff from the same date. The extra charge on account of Conveyance Allowance was counterbalanced by the savings of Rs. 130 per month on account of pay of the 2 Bus Drivers, the cost of petrol amounting to about Rs. 130 per month and the rent for the Garage at Rs. 30 per month. The exchange of the Motor Bus for a Motor Car at first, and the final disposal of the

Motor Car however resulted in a loss of Rs. 2,772-8-0 which was written off by the Government of India.

394. Since I took charge of the Bombay Station, it has been my chief object to popularise Broadcasting and to secure success in this direction, it was necessary to improve the quality of the items broadcast from the Station. For this purpose the services of more efficient artists had to be obtained and although the grant at my disposal for payment of fees to artists was somewhat limited during the year under review, several marked improvements were made in the programmes, both European and Indian, broadcast from this Station. From October 1930 a new feature of Broadcasting relays from the Pathe Cinema was introduced and in January 1931 arrangements were made for Broadcasting relay of services from the St. Thomas Cathedral. In consequence of these arrangements there was some increase in the expenditure on the telephone lines for outside Broadcasting. The hours of transmission were also considerably increased and in consequence there was some increase in the charges for electric energy.

395. When Government took over the Broadcasting Service the Machinery and Apparatus at the Control Room and the Transmitter were in use for over 2½ years. It was therefore found necessary to replace a large number of batteries and valves and some Condensers and other small parts in the course of the year under report and the expenditure under the head "Repairs, Renewal and Maintenance of Machinery" was considerably large during the first year of the Service as compared with the amount spent under this head during the half year of the current year.

396. The expenditure on all other items was kept down as far as possible and the Service, on the whole, was run at the Bombay Station on much more economical lines as compared with the cost of the working of the Service by the Indian Broadcasting Company, in spite of the fact that better programmes were broadcast and the hours of transmission increased. It would appear that the Service was becoming more popular as the number of listeners' licences has been increasing from the time that the Government of India took over the Service. The popularity and usefulness of the Service might have become more evident after the results of the working of the current year were it not for the fact that unfortunately the Government of India owing to serious financial stringency have practically decided to close down the Service as soon as possible.

397. The work in connection with the publication 'Indian Radio Times' which is the organ of the Indian State Broadcasting Service was done at the Bombay Station and the expenditure during the year under report was met out of my grant for Contingent Charges which was supplemented by the Government of India towards the close of the year. The receipts on account of subscriptions and advertisement charges were credited directly to the Government of India. Soon after I took over charge of this publication, a saving of over Rs. 520 per month, as explained in paragraph 392 above, was effected in the Salaries and Allowances which were being paid to the members of the Office Staff. In the final accounts for the year a sum of Rs. 165 per month was transferred from the Broadcasting Service to the Indian Radio Times on account of supervision charges in respect of myself and my Office Establishment. The income and expenditure account of the publication for the year 1930-31 showed a loss of

Rs. 203. This was chiefly due to the fact that some advertisements which were canvassed by the previous Editor were withdrawn when he was discharged. I tried to secure some of those advertisements as well as other new ones in the course of the year and I also improved the quality of the paper and the general tone of the Publication which however had the effect of increasing the cost of printing and production. The number of subscribers was rising, the advertisement receipts were improving and the Publication was becoming not only self-supporting but would also result in a good amount of profit to Government as would appear from the accounts for the current half year. Unfortunately the decision of the Government of India to close down Broadcasting has checked the progress and may result ultimately in having to write off as bad debts the recoveries outstanding on 30th September 1931 and up-to date of the actual closing down of the Service.

**SECTION I-B.—FINANCIAL REVIEW BY THE STATION DIRECTOR ON THE WORKING OF THE CALCUTTA STATION FOR THE YEAR ENDED 31ST MARCH 1931.**

398. Reviewing the financial result of the Calcutta Station of the Indian State Broadcasting Service for the financial year 1930-31, it should be noted that whilst it has been possible to show the actual expenditure and disbursements in respect to the Calcutta Station, it has not been possible to do so in respect to the revenue figure, as the main portion of the revenue Licence Fees and Customs Duty—has been collated as a whole. I have, therefore, in view of the majority of the Licence Fees having been collected from the Eastern side of India, and for the purpose of this report in order to arrive at an approximate estimate of the earnings of the Calcutta Station, felt justified in taking five-eighths of the total Licence Fee, the whole of the Customs Duty levied on the ports of Calcutta, Rangoon and Madras, Miscellaneous Receipts, and half of the amounts recovered by the Liquidators of the Indian Broadcasting Company.

Reviewing the results on this basis, the year's working shows a loss of Rs. 65,586, revenue and expenditure being summarised as under :—

<i>Revenue.</i>	Rs.	Rs.	Rs.
Licence Fees (5/8th of Rs. 67,120)	..	41,950	
Customs Duty—			
Calcutta	24,433		
Madras	1,536		
Rangoon	3,942		
		29,911	
Half amount recovered from Indian Broadcasting Company's Liquidators	..	1,445	
<i>Miscellaneous.</i>			
Microphone Receipts	1,478		
Rent for sub-tenants.	2,850		
		4,328	
<i>Expenditure.</i>			
As per Income and Expenditure account	..	..	1,38,420
Add—half amounts paid by Bombay to Routers and Performing Right Society	..	..	6,898
		77,634	1,45,318
Expenditure over Revenue	..	67,634	..
Total	..	1,45,318	1,45,318



In considering the deficit shown above, it should be noted that considerable revenue has been lost to the Services owing to uncollected Licence fees, due to piracy, and Customs Levy owing to such items as Loud-speakers, H. T. and L. T. Batteries, Volume Controls, Aerial Wire, etc. (the major portion of which are imported as component parts for Broadcast Receivers) not being admitted as Wireless Receiving Apparatus and Components; in consequence of which Customs Duty on these imports has not been credited to the Broadcasting Service.

However, taking the figures as they stand, the loss represents a considerable reduction as compared with the loss sustained in 1928-29, when the Indian Broadcasting Company accounts showed a loss of Rs. 2,15,319 for the two Stations. Assuming that half that amount were attributed to Calcutta, the loss on the 1930-31 working of this Station has been reduced by approximately Rs. 42,000, and is less than the loss estimated in my Report on Broadcasting addressed to the Hon'ble Member for Industries and Labour (Sir B. N. Mitra), dated 17th January 1929, in which I gave (on page 3) a financial forecast of the working of the Calcutta Station for a period of seven years (1929—1935). I estimated the loss, in that report, for the year 1930 at Rs. 67,000. It is, however, considered that but for the prevailing depression in trade, piracy and uncredited revenue indicated above, the loss in the accounts of the Calcutta Station would have been practically wiped out for the year under review.

**399. Publications (Betar Jagat).—**The only publication issued by the Indian State Broadcasting Service from the Calcutta Station is "Betar Jagat", a Bengali vernacular magazine printed fortnightly in which is published Editorial notes, daily programmes, and other items of interest to the listeners. The publication was started in September 1929, and the work in connection with it, was carried out for some time gratis by various members of the Staff. The magazine started with a monthly circulation of 2,000 copies which at the end of the first year increased to 3,000, and doubled its original circulation by the end of the financial year under review. This resulted in the account showing a profit of Rs. 742 for the year 1930-31.

The publication is sold for one anna per copy and the number of subscribers has risen from 276 on the 1st April 1930 to 744 on the 31st March 1931, the main source of revenue being obtained from advertisements. During the year the cost of publication, etc., was met from Budget expenditure, but the Government of India have decided to work the account as a separate one under Chapter 2 of the Account Code, as from the 1st April 1931.

**400. Studios and Offices at Garstin Place.—**The offices and studios at Garstin Place are held on a five-year lease, at a monthly rental of Rs. 850, which expires on the 16th July 1932. The matter of the renewal of the lease is for consideration by the Government of India.

**401. General Working.—**The general working of the Broadcasting Service at Calcutta has been satisfactorily maintained throughout the period under review.

**402. General Staff.—**With the exception of two changes in the clerical and menial staff, the establishment as taken over by the Government of India from the Indian Broadcasting Company remains the same. The Staff have worked willingly, energetically and efficiently.

**403. Engineering Staff.**—The original staff of Engineers was retained throughout the year. The staff carried out their duties satisfactorily.

**404. Transmitter and Control Room.**—The working and maintenance of the Transmitter and Control Room have been satisfactory throughout the year, and maintenance and replacement charges considerably reduced. A separate report on the Transmitter is attached.

**405. Licences.**—The total number of licences taken out for the whole of India is not available locally, but the numbers issued in the Bengal and Assam Circle for the years 1929-30 and 1930-31 are tabulated below, showing an approximate increase of 1,000 over the previous year :—

	1929-30.	1930-31.
Indian . . . . .	3,382	4,366
European . . . . .	655	644
Total . . . . .	4,037	5,010

**406. Licence Department.**—The Licence Department has been in charge of the Investigating Inspector, and has been accommodated at Garstin Place working under my supervision. The Investigating Inspector and a Clerk are provided and paid by the Posts and Telegraphs Department—the remainder of the Staff, comprising one Sub-Inspector and two Informers, are supplied and paid by the Indian State Broadcasting Service. The work of the latter mainly consists of visiting the different areas of Calcutta, and furnishing the Investigating Inspectors with the addresses at which receiving installations are found. These are checked against the Register, and those not recorded are visited by either the Inspector or his assistant.

The clerical work and correspondence in this Department has greatly increased, and become so voluminous that it has been found essential to allow the Inspector to utilise the services of the Informers in this office. Were this not done, it would not be possible for the Inspector to find time to make his daily visits to houses ; whereas, with the clerical assistance obtained from the Indian State Broadcasting Service Informers, he is now able to devote the mornings to visiting, and the afternoons to office work.

Details of the outdoor work as carried out by the Licence Department from August last year, from which date the figures became available, are summarised below :—

(1) Number of visits paid by the Investigating Inspector and the Sub-Inspector . . . . .	2,130
(2) Number of pirates detected . . . . .	481
(3) Number of pirates prosecuted . . . . .	7
(4) Number of streets visited by the two Informers . . . . .	1,994

**407. Propaganda Department.**—A sum of Rs. 1,339 was expended on propaganda work during the year ending 31st March 1931, and was paid in salaries and travelling expenses to five selected men, comprising a Publicity Writer, two Wireless Receiver, Mechanics, and two Canvassers.



The work of this Department consists of writing propaganda articles for six local vernacular newspapers, visiting those persons who have failed to renew or cancelled their licences, instructing and helping them in the maintenance of their sets, and persuading them to renew their licences.

The *raison d'être* for this Department is set out in my letter No. G.-1/272 of 22nd January 1931, and the table below gives a summary of the work carried out during the year by the propaganda staff.

(1) Number of addresses furnished by the Licence Department	1,290
(2) Number of addresses visited by the Propaganda Department	961
(3) Number of licences taken out as a result of Propaganda persuasion	403
(4) Number of listeners sets repaired free of charge	90

408. *Programmes*.—Making allowances for necessary alterations, additions, etc., it may be taken for the purpose of this Report that the daily programmes as printed in the Government official organ "Indian Radio Times", have been broadcast daily during the period under review.

409. *Division of Broadcast Hours*.—The total number of actual broadcast hours during the year amounted to 2,664 hours, the division of which was as under :—

Indian Programmes	1,812 hours.
European Programmes	852 "

410. *Artists' Fees*.—A total of Rs. 40,994 was paid in fees to artists, the division between Indian and European being as under :—

	Rs.
Indian Artists	25,750
European Artists	15,244

411. *Sub-Division of Programme Items*.—The following table shows approximately the sub-division of time allotted to the various matter broadcast in the respective programmes :—

Indian Programmes.		European Programmes.	
168 hours	News	192 hour	
156 "	Instrumental Music	96 "	
	Vocal (Music)—		
36 "	Religious	48 "	
120 "	Classical	36 "	
240 "	Light	96 "	
60 "	Humorous	24 "	
240 "	Plays	36 "	
120 "	Talks and Lectures	100 "	
192 "	Records	224 "	
144 "	Children's Corner		
300 "	Ladies' Hour		
36 "	Musical Training		
1,812 "	Total	852 "	

**412. Sponsored Programmes.**—Endeavours are being made to popularise Sponsored Programmes, but so far little progress has been made. Local firms appear reticent to adopt this scheme, and trade depression has caused many of them to retrench on advertising. However, as an inducement, arrangements were made to allow firms to broadcast Sponsored Programmes without charges, providing they paid for the cost of the programmes. Twenty-three such programmes have been broadcast during the year, by the following firms and private individuals :—

Messrs. Philips Elec. Co. (India), Ltd., Messrs. T. E. Bevan & Co., Ltd., H. M. V. Gramophone Coy., Messrs. Dwarkins & Co., Messrs. Hyland & Sons, Mr. H. V. Simmins, and "Harlequin".

In addition to the efforts made locally, letters have been addressed to Royal Broadcasting Systems Inc., America, and "The Advertiser" Broadcasting Service, Australia, offering them facilities at both the Calcutta and Bombay Stations to broadcast Sponsored Programmes sent by them in the shape of gramophone records. Hopes are entertained that if America and Australia can be induced to send as Sponsored Programme records, the arrangement will prove remunerative; and it is anticipated that if more publicity can be given to Sponsored Programmes locally, better results might be obtained.

**413. Shortwave Reception from Abroad.**—Reception of Shortwave Transmissions from abroad has not, on the whole, proved successful chiefly due to the facts that proper apparatus has not been available and reception from long distances being greatly interfered with by local disturbances at Garstin Place. However, one experiment—that of relaying the Prince of Wales' speech on the occasion of the Opening of the British Empire Exhibition at Buenos Aires on the 14th March—proved successful, mainly due to the fact that special arrangements were made in England to relay the speech from Powerful stations, reception in this case being sufficiently strong to compensate for the lack of proper receivers and local interference.

It is my opinion that if satisfactory relays from abroad are to be obtained, the best way of accomplishing the end in view would be to erect an independent Shortwave Receiving and Relaying Station somewhere in the North Centre of India, with a view to utilising it solely for the purpose of receiving and relaying foreign programmes.

**414. European Programmes.**—The slight falling off of European List may be attributed to the cutting down of the European Programmes time, to devoting more time to the Indian Section, and to the impossibility, through lack of good artists and funds, of providing better European Programmes. It is, however, considered that at the present time piracy in the Mofussil is prevalent, and figure 644, representing European listeners, is not a true indication of the number of European possessing receivers. Furthermore, European Programmes of the necessary quality cannot be obtained locally in sufficient quantity to induce Europeans to take out licences. It is anticipated that the introduction of a better Shortwave Service, relaying European Programmes, as suggested in the above paragraph, will be an inducement to Europeans in the Mofussil to take out licences in greater numbers.

**415. Indian Programmes.**—The time allotted to Indian Programmes has gradually been extended, and on the whole the programmes have considerably improved. It is, however, felt that the sums now allotted to Programme Expenditure should be increased to meet the cost of training our own artists and composing our own music, plays, songs, etc., as three years continuous broadcasting is gradually exhausting the existing supply.

**416. Transmitter. Masts, Land and Buildings at Cossipore.**—The Mast and Station Building at Cossipore require renovation. The land is leased from the Calcutta Improvement Trust for a period of five years, at a monthly rental of Rs. 250. The lease terminates on the 1st February 1932. Arrangements have been made with the Improvement Trust to raise the level of the land by two feet, to prevent flooding, and estimates for the cost of repainting the Masts and renovating the building after the rains are being called for. The matter of the renewal of the Land lease is for Government consideration.

**417. Main Transmitter.**—The Transmitter has worked continuously and exceptionally well throughout the period under review.

**418. Station Staff.**—The work of the Staff, comprising a Station Engineer, Assistant Engineer, one Technical Assistant, two Apprentices and two Menials, has given complete satisfaction.

**419. Maintenance and Upkeep of Apparatus.**—Maintenance charges have been less than anticipated, and the upkeep of all apparatus most commendable.

**420. Hours of Transmission.**—The Transmitter ran a total of 2,820 hours, 17 minutes, during the year, the transmitting hours being divided as under :—

Programmes	..	..	..	..	..	2664 hrs. 54 mins.
Testing	..	..	..	..	..	155 „ 23 „

The average daily run, working out a 7 hours, 45 minutes, was distributed approximately as follows :—

Morning Run	..	..	..	..	..	1 hr.
Midday Run	..	..	..	..	..	2 hrs. 15 mins.
Afternoon Run	..	..	..	..	..	1 hr.
Night Run	..	..	..	..	..	3 hrs. 30 mins.

Table No. 1 shows the actual running hours each month.

**421. Interruptions.**—Interruptions from various causes are shown on Table No. 2. The total percentage being 166% of the total transmitting hours, of which 084 was attributable to causes over which we had no control.

**422. Power Consumption.**—Table No. 3 shows the distribution and monthly power consumption. It may be explained that the drop in consumption on the 225 Volt Supply Circuit in October is due to the fact that for the first six months of the year current for the Shortwave Transmitter was taken from the 225 Volt Supply, until arrangements could be made with the Supply Company to give a connection on the 440 Volt mains.

**423. Breakages and Replacements.**—The following items of equipment were replaced during the year :—

6 Glass Rod Insulators.

7 Guard Lamps.

4 Valves—burnt out.

The following table shows the life of the four valves referred to above :—

<i>Valves.</i>	<i>Life.</i>
Type MT7B, No. 648T	7454 hrs. 52 mins.
Type MT9, No. 656T	1733 „ 11 „
Type MT2, No. 1245	5233 „ 19 „
Type MR7A, No. 19925	7537 „ 07 „

**424. Valve Life.**—The cost of valves being the most expensive item in the maintenance of the Transmitter, particular attention has been paid to adjustments of the apparatus with a view to prolonging the life of each valve. Table No. 4 shows the expended life of valves in use at the Calcutta Station up to the end of March 1931, and Table No. 5 the comparative wastage and life since the Station was opened.

**425. Shortwave Experiments.**—Transmissions on Shortwave have been regularly carried out throughout the last ten months of the year, and an application for permission to improve and extend the Shortwave Service was submitted to Government in February last. The Director of Wireless inspected the existing apparatus at Cossipore in March and discussed with the Station Director a scheme for extension and improvement, details of which were duly worked out and forwarded to the Government through the Director of Wireless. The scheme as submitted provided a capital expenditure of approximately Rs. 9,000, and a recurring expenditure of about Rs. 2,980, of which Rs. 5,483 in respect to capital expenditure has since received Government sanction.

**426. Suggestions for Future Development.**—The following suggestions are submitted for consideration, as it is felt if they could be adopted they would prove of considerable progressive value in the future development of Broadcasting :—

- (1) If Broadcasting is to continue, an announcement by the Government of India to this effect is desirable and urgently needed.
- (2) More drastic measures to check piracy in the cities, and more especially in the Mofussil, should be adopted.
- (3) Extension of Propaganda and Publicity.
- (4) Increased expenditure on Propaganda.
- (5) Improvement and extension of Shortwave Transmitter to relay local programmes during the summer months when atmospheric disturbances make reception on longwave practically impossible.
- (6) The establishment of a Shortwave Receiving and Relaying Station for the purpose of providing all-India with alternative programmes received from abroad.



427. Tables 1 to 5 referred to above are given below:—

*Table showing details of Hours the Transmitter Ran for the period 1st April 1930 to 31st March 1931.*

Table No. 1.

Months.	Testings.		Programmes.		Total.	
	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.
April 1930 . . . . .	12	45	226	24	239	9
May 1930 . . . . .	12	39	237	31	250	10
June 1930 . . . . .	13	31	225	38	239	9
July 1930 . . . . .	12	32	225	58	238	30
August 1930 . . . . .	13	02	220	52	233	54
September 1930 . . . . .	11	05	212	19	223	24
October 1930 . . . . .	09	57	221	31	231	28
November 1930 . . . . .	10	58	217	46	228	44
December 1930 . . . . .	12	14	225	08	237	24
January 1931 . . . . .	13	45	222	48	236	33
February 1931 . . . . .	16	25	203	07	219	32
March 1931 . . . . .	16	30	225	52	242	22
			2664	54		

*Table showing Electric Light, Fan and Power Consumption at Cossipore during the period 1st April 1930 to 31st March 1931.*

Table No. 2.

Months.	225-Volts.	450-Volts.
	Kwh.	Kwh.
April 1930 . . . . .	162	3842
May 1930 . . . . .	188	4322
June 1930 . . . . .	218	4993
July 1930 . . . . .	218	5008
August 1930 . . . . .	213	4840
September 1930 . . . . .	201	4496
October 1930 . . . . .	54	4384
November 1930 . . . . .	40	4136
December 1930 . . . . .	44	4380
January 1931 . . . . .	52	4513
February 1931 . . . . .	64	4184
March 1931 . . . . .	119	4633
	1573	53781

*Summary of Interruptions (Flashovers, Cut-outs, etc.) during the period 1st April 1930 to 31st March 1931.*

*Table No. 3.*

Flashovers—

Total No. 148. Total Time 10 Mins. 5 secs. . . . .	.006%
1. Engineering—	
(a) Transmitter. Total 29 flashovers, covering 2 mins. 2 secs. due to insects . . . . .	.0012%
(b) Control Room. Total number 95, covering 6 mins. 23 secs. due to over-modulations, crackles, battery troubles, etc. . . . .	.00396%
	<hr/> 0.00516%
2. Programmes—	
Total number 3, covering 13 secs. due to microphone knocking and handling gramophone badly . . . . .	.00013%
3. Unknown causes—	
Total number 16, covering 1 min. 4 secs. . . . .	.00066%
4. Causes coming from outside—	
i.e., Faulty supply, Induction effect of lightning, etc.	
Total number 5, covering 18 secs. . . . .	.00018%
Total . . . . .	<hr/> 0.00613%

Cut-outs—

Total number 50. Total Time 4 Hrs. 23 mins. 35 secs. . . . .	.16%
1. Engineering—	
(a) Transmitter. Total number 8, covering 23 mins. 16 secs. due to valve changing, machine changing, switch operation . . . . .	.013%
(b) Control Room. Total number 10, covering 1 hour 23 mins. due to technical troubles, crackles, battery troubles . . . . .	.051%
	<hr/> 0.064%
2. Programme Department—	
Total number 5, covering 23 mins. 16 secs. due to artists failing to turn up, etc. . . . .	.016%
3. Causes coming from outside—	
Total number 27, total time 2 hrs. 11 mins. 19 secs. due to faulty supply, Induction effect of lightning, faulty telephone lines . . . . .	.062%
Total . . . . .	<hr/> 0.162%



*Table showing the Expended Life (in hours) of the Valves in Use up to the 31st March 1931.*

*Table No. 4.*

1. *Drive Circuit—*

	Hrs.	Mins.
MT2, No. 1273 . . . . .	709	10

2. *Oscillator Unit—*

MT9, No. 292 . . . . .	5130	36
MT9, No. 190 . . . . .	1821	6

3. *Rectifier Unit—*

MR7A, No. 19963 . . . . .	8168	11
MR7A, No. 1838 . . . . .	4100	55
MR7A, No. 18316 . . . . .	4895	22
MR7A, No. 1787 . . . . .	3121	48

4. *Modulator Unit—*

MT7B, No. 592 . . . . .	8383	35
MT7B, No. 647T . . . . .	8116	10
MT7B, No. 575 . . . . .	8384	11
MT7B, No. 6567 . . . . .	8384	11
MT7B, No. 595 . . . . .	8384	11
MT7B, No. 646T . . . . .	688	15
MT7B, No. 598R . . . . .	6778	37

5. *Sub-Modulator—*

MT4B, No. 4923 . . . . .	390	35
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6. *Spare Valves—*

MT4B, No. 453 . . . . .	0000	00
MR7B, No. 2029T . . . . .	0000	00
MR7A, No. 2034T . . . . .	0000	00
MT7B, No. 579 . . . . .	0000	00
MT2, No. 1296T . . . . .	0000	00
MT9, No. 192 . . . . .	22	24

*Table showing the comparative wastage and life (in hours) of Transmitting Valves at Calcutta Station over the period 21st August 1927—31st March 1931.*

Table No. 5.

Valves burnt out from 21st August 1927 to 1st April 1929.			Valves burnt out from 1st April 1929 to 31st March 1930.			Valves burnt out from 1st April 1930 to 31st March 1931.		
Valves Type and No.		Total Life.	Valves Type and No.		Total Life.	Valves Type and No.		Total Life.
	Hrs.	Mins.		Hrs.	Mins.		Hrs.	Mins.
MT9, No. 644	1,226	36	MR7A, No. 19938	5,273	53	MT7B, No. 648T	7,456	52
MT9, No. 643	1	3	MT9, No. 175	589	39	MT9, No. 656T	1,733	11
MT9, No. 645	135	26	MT9, No. 645	2,048	15	MT2, No. 1245	5,233	19
MT9, No. 642	2,713	4				MR7A, No. 19928	7,537	8
MT7B, No. 578	106	21						
MT7B, No. 572	1,497	22						
MT7B, No. 597	267	45						
MT7B, No. 593	No Life—Broken.							
MT2, No. 1302V	No Life—Broken.							
MT2, No. 1272	1,340	4						
MT2, No. 1300	1,099	44						
MR7A, No. 1307	59	34						
MR7A, No. 19978	240	14						
Valves MT9	4		Valves MR7A	1		Valves MT7B	1	
Valves MT7B	4		Valves MT9	2		Valves MT9	1	
Valves MT2	3					Valves MT2	1	
Valves MR7A	4					Valves MR7A	1	
Total	15	Valves.	Total	3	Valves.	Total	4	Valves.

1 year, 9 months.

Total Run—2,678 hrs.

1 year.

Total Run—2,892 hrs.

1 year.

Total Run—2,814 hrs.

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SECTION II.—REMARKS BY THE DIRECTOR OF COMMERCIAL AUDIT.

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428. The accounts of the Bombay and Calcutta Stations of the Indian State Broadcasting Service were audited locally by the Assistant Directors of Commercial Audit, Bombay and Calcutta Circles, respectively. The expenditure and revenue accounted by the Station Directors of the Service were consolidated and a total Income and Expenditure Account of the Service as a whole was compiled by the Director of Commercial Audit.

429. The working of the Service (including that of the Radio Publications) has resulted in a net loss of Rs. 1,65,170 which works out to 37% on the total Capital on 31st March 1931. The "Betar Jagat"—the Radio Publication of the Calcutta Station has made a small profit of Rs. 743 whereas the Indian Radio Times of the Bombay Station has shown a loss of Rs. 203. The former would have also worked at a loss had the proportionate supervision charges of the Station Director and his staff been debited to it.

430. The payments made to Messrs. Reuters Ltd., the Performing Rights Society Ltd., and the International Radio Association, which are debited to the accounts of the Bombay Station, relate to both the Bombay and Calcutta Stations who derive benefits therefrom.



(ii) Bombay Station as per Balance Sheet .. .. .

3,29,788

5,72,890

*Deduct*—Customs receipts license fees and other miscellaneous receipts adjusted in the books of the Accountants General and the Pay and Accounts Officer, Customs House, Calcutta ..

1,27,149

4,45,747

4,45,747

Total

11

4,85,591

Total

4.85.591

Cash in Bank

20

20

Total Assets

•

1,28,051 1,92,370

3,20,421

3,20,421

### Loss on the working of the Service

•

$$\vdots$$

1,65,170

(Sd.) D. COLIN CAMPBELL,

Director of Commercial Audit.

## THE INDIAN STATE BROADCASTING SERVICE.

## 432. Income and Expenditure Account of the Calcutta and Bombay Stations for the year 1930-31.

Particulars of Expenditure.	Calcutta Station.		Bombay Station.		Total.	Particulars of Income.	
	Rs.		Rs.		Rs.	Rs.	Rs.
To Salaries and Wages (Officers and Staff) ..	..	46,655	36,858	83,513	By Recoveries effected—		
„ Payments to Artists ..	..	40,994	39,475	80,469	„ License fees adjusted in the books of the Accountant General, Central Revenues ..	67,120	
„ Payments to Reuters ..	..	..	9,600	9,600	„ Customs duty on wireless and other apparatus adjusted in the books of the Accountant General, Bombay ..	26,428	
„ Payments to the performing Rights Society, London and the International Radio Society ..	..	..	4,197	4,197	„ Customs duty on wireless and other apparatus adjusted in the books of the Accountant General, Madras ..	1,537	
„ Allowances and Honoraria ..	..	1,902	2,853	4,755	„ Customs duty on wireless and other apparatus adjusted in the books of the Accountant General, Burma ..	3,942	
„ Rents, Rates and Taxes ..	..	14,000	19,190	33,190	„ Customs duty on wireless and other apparatus adjusted in the books of the Accountant General, Customs House, Calcutta ..	24,438	
„ Power and Lighting ..	..	5,530	7,055	12,585			1,23,460
„ Maintenance of Plant ..	..	4,039	6,720	10,759			
„ Hire and Maintenance of records and Royalty (Rs. 167) ..	..	2,031	..	2,031			
„ Contingencies—	..	7,807	5,900	13,797			
Telephone charges ..	..	..	..	..			
Propaganda and Publicity ..	..	2,818	..	2,818			
Postage and Telegrams ..	..	1,339	..	1,339			
Printing and Stationery ..	..	415	..	415			
Advertisements ..	..	904	..	904			
Newspapers and Periodicals ..	..	366	..	366			
Maintenance of Motor Cycle and Car ..	..	18	..	18			
Repairs to Building ..	..	638	..	638			
Office Expenses ..	..	276	..	276			
	..	1,001	..	1,001			



Interest on Capital ..	..	..	7,067	11,595	18,662	..	10 per cent. levy collected by the liquidator Indian Broadcasting Company, adjusted in the books of the Accountant General, Bombay ..	2,890
Depreciation ..	..	..	6,350	11,269	17,619	..	Microphone advertisement (Calcutta Station) ..	1,478
Audit Fees ..	..	..	* 2,045	* 650	2,695	..	Rent from Sub-tenant (Calcutta Station) ..	2,850
Loss on disposal of motor bus ..	..	..	..	2,773	2,773	..	..	..
Reserve for Doubtful Debts ..	..	..	..	971	971	..	Gross Loss on the working of the Service carried to Part II ..	8,446
								1,65,710
								2,97,616

• Assistant Director of Commercial Audit ..	..	775	Assistant Director of Commercial Audit ..	..	300
Audit and Accounts Officers ..	..	1,270	Accountant General, Bombay ..	..	350
		2,045			650

† There is a difference of Rs. 1,145 between the total appearing in this account and the Calcutta Station accounts made up as detailed below :—

Audit Fees of Pay and Accounts Officer and Audit Officer, Miscellaneous Central Department ..	Rs.	1,270
Deduct audit fee charged in respect of Director of Commercial Audit's headquarters ..	..	125
		1,145

† There is a difference of Rs. 23,514 between the total appearing in this account and the Bombay Station accounts made up as detailed below :—

Audit Fees charged in the consolidated accounts ..	Rs.	650
Interest on Capital ..	..	11,595
Depreciation ..	..	11,269
		23,514

433. Income and Expenditure Account of the Calcutta and Bombay Stations for the year 1930-31.

PART II.

	Rs.		Rs.
Loss on the working of the Bombay and Calcutta Stations ..	1,65,710	Profit on the Betar Jagat ..	743
Loss on the Indian Radio Times (Bombay Station) ..	203	Net Loss on the working of the Service transferred to Balance Sheet ..	1,65,170
	<u>1,65,913</u>		<u>1,65,913</u>



## 434. Consolidated Income and Expenditure Account of the Radio Publications, Calcutta and Bombay Stations, for the year 1930-31.

Particulars of Expenditure.	Calcutta Station Radio Publication. The "Beta Jagat".		Bombay Station Radio Publication. The "Radio Times".		Total.	Particulars of Income.	Calcutta Station Radio Publication. The "Beta Jagat".		Bombay Station Radio Publication. The "Radio Times".		Total.
	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.	
To Salaries and Wages	..	1,070	4,535	5,605	..	By Sales of Publications	..	2,097	4,083	6,180	
" Printing and Stationery	..	3,655	10,800	14,455	..	" Advertisements	..	4,644	14,927	18,571	
" Contingent Expenses	..	..	2,398	2,398	..	" Miscellaneous receipts	..	197	..	107	
" Commission on Sales and on advertisements	..	..	..	..	..						
" Postage	..	896	130	1,026							
" Miscellaneous Expenses	..	227	..	227							
" Audit Fees	..	7	..	7							
" Profit carried to Part II of the Income and Expenditure Account	..	250	450	700							
		743	—203	540							
		6,848	18,110	24,958				6,848	18,110	24,958	

